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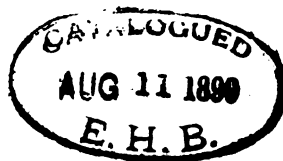
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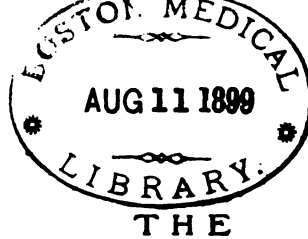
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PHILADELPHIA POLYCLINIC

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PHARMACOPŒIAL PREPARATIONS OF DIGITALIS.

BY JOSEPH W. ENGLAND, Ph.G.

THE practice is followed by some thoughtless pharmacists of preparing the tincture and infusion of digitalis from the commercial fluid extract, by diluting it with certain proportions of alcohol and water to make the tincture, and of water to make the infusion. As the average pharmacist buys his fluid extract of digitalis from the large manufacturing houses, the latter, for obvious reasons, encourage the practice. The editor of the PHILADELPHIA POLYCLINIC, having had sent to him, by one of these houses, a physician's sample of the fluid extract with directions for making the tincture or the infusion from it, has requested the writer to answer this query: "Will the commercial fluid extract of digitalis, on dilution with alcohol and water, and with water, yield a tincture or an infusion that is equal in therapeutic worth to the officially made preparations?"

Careful consideration of this question leads the writer to answer it in the negative. The commercial fluid extract of digitalis is a most variable product and, in view also of its small dose, a dangerous preparation. It is, largely, a concentrated hydro-alcoholic solution of certain proximate principles, or their decomposition products arising from the use of heat. Roger has clearly shown that the physiologic power of digitalis is very notably diminished by the heat of a water-bath. Thus, a 5 per cent. maceration which was found to be toxic in doses of 0.05 grams, when reduced only 6.6 per cent., required

60 times the original amount to cause toxic results. As the pharmacopœial process for making digitalis fluid extract requires that a certain proportion of the percolate be evaporated down to a soft extract, and dissolved in the reserved portion, it may be readily seen how some of the active toxic principles are changed into non-toxic inactive ones, even if it is practically possible—which is very doubtful—to keep the temperature down to 122° F., as officially directed. Kobert goes so far as to claim that, in the making of the fluid extract, digitoxin is precipitated in an insoluble form, but this is probably not true of all processes.

The commercial fluid extract, after being made, is stored for a time, and then the supernatant clear solution is carefully decanted from the precipitated proximate principles, and sold. These principles most probably have therapeutic worth, and thus a certain measure of strength is lost.

But, apart from the question of the effect of heat on solutions of the proximate principles of digitalis, there is another factor. The writer believes that the commercial fluid extracts are usually made from the German leaf, which costs about 10 cents a pound, rather than from the English leaf, which costs about 50 cents a pound, for the reason that the fluid extract can be bought, commercially, for 50 cents a pint. If the English leaf costs 50 cents a pound, and the necessary alcohol costs, as it probably does, about 20 or 25 cents, and skilled labor is employed, fluid

extract of digitalis cannot be made from English leaf to sell at 50 cents a pint.

Some years ago, the writer had trial made in the wards of the Philadelphia Hospital, of tinctures and infusions of digitalis made from the German leaf. Clinical results showed that while physiologic effects were obtainable, they were not comparable in uniformity with those had with preparations made from the English leaf, and the reason most probably was that the English leaf is a cultivated leaf, carefully freed from leaf-stalks, before being marketed, and more uniform in chemical composition than the German leaf. Broeker has shown that while he found 1 per cent. of digitalin in the parenchyma of the leaf minus the stalk and nerves, he found in the latter only 20 per cent. of that amount. Hence the variation in strength of digitalis preparations made from the German leaf.

The claims of manufacturers for so-called "standardized" fluid extract of digitalis should be taken by physicians *cum grano salis*. Even with Schmiedeberg's and Killiani's masterly analyses of digitalis, the chemistry of the latter cannot be considered as settled; certainly no practicable process has yet been devised for standardizing the galenic preparations. In their fluid extracts some manufacturers arbitrarily fix *differing* percentages of extract as their standard. But as the really valuable part of digitalis constitutes but a small and varying proportion of the extract, and may be absent altogether, standardization by extractive is a delusion and a snare.

Chemists generally are agreed that the therapeutically active constituents of digitalis are: Schmiedeberg's digitalin, almost insoluble in water; digitoxin, wholly insoluble in water; and digitonin and digitalëin, both freely soluble in water. The fluid extract and tincture contain most probably all four principles, but in view of the dissimilarity of menstrua and process, *in different relative*

proportions. Hence an official tincture cannot be made from the official fluid extract. The watery infusion, while containing digitonin and digitalëin, contains but a trace, if any, of Schmiedeberg's digitalin, and is *wholly free* from digitoxin, which is irregular in absorption, and highly dangerous in physiologic action. Hence the infusion is a far less poisonous preparation than the tincture and fluid extract, and can be given in a relatively larger dose. The absurdity of hoping to get a correctly made tincture or infusion by dilution of the commercial fluid extract must be apparent.

While the average retail pharmacist buys and dispenses the commercial fluid extract of digitalis, he generally makes the tincture himself from selected leaf, and often from the English cultivated leaf. As the tincture requires no heat in making, and precipitates no proximate principles on standing, physicians would do well to taboo the use of the fluid extract, and use the tincture in its place. Further, on exhibiting the tincture to obtain physiologic effect, its dose may be more gradually and safely increased than with the very small-dosed fluid extract.

There is no doubt that room exists for improvement in the official formulas for making digitalis preparations. There exists, also, a necessity for a deeper chemico-physiologic study of the relative activities of digitalis preparations made both from the German and English leaf. But these are questions which cannot here be entered into.

The New York Polyclinic.—The friends of the New York Polyclinic, who were grieved to learn of the recent fire which destroyed the College and Hospital buildings, and appurtenances, will be glad to learn that arrangements have been made to continue the teaching of the institution uninterruptedly, and that the Faculty expect to occupy temporary quarters very shortly, while doubtless a new and improved building will be the ultimate outcome.

THE TREATMENT OF SIMPLE GLAUCOMA.

BY HOWARD F. HANSELL, M.D.

Clinical Professor of Ophthalmology, Jefferson Medical College; Professor of Diseases of the Eye, Philadelphia Polyclinic, etc.

SIMPLE glaucoma is essentially non-inflammatory in its origin, course and termination as compared with true glaucoma in its acute and chronic forms. The main, if not the only, point of resemblance is the excavation of the optic nerve, and it is doubtless because of the presence of this diagnostic sign that the old classification has been retained. There is rarely in its history injection of the ciliary bloodvessels, pain, periodic loss of vision, or other evidence of acute increased intraocular tension. The diagnosis of the affection depends, in the main, upon two coincident conditions, namely, gradual diminution of vision, both central and peripheral, and slowly advancing cupping of the nerve-head. But spinal and idiopathic (no assignable cause) optic nerve atrophy are characterized by similar symptoms. For this reason Schweigger suggested in 1891 (*Arch. of Ophthal.*, Vol. xx, p. 475) that the term "simple glaucoma" should be accepted with considerable reservation. Increased tension, that *sine qua non* of glaucoma, cannot be demonstrated. The enlargement of the pupil is not dependent upon paralysis from pressure of the ciliary nerves that lie in grooves in the sclera, but is found only late in the disease, when atrophy of the nerve is far advanced. Recession of the near-point from failure of the accommodation is not a pronounced symptom. A patient will require a stronger glass for reading than the healthy eye; but only because he needs magnification of the letters, that they may be perceived by the partly atrophic retina. It is not claimed that simple glaucoma should be classified among optic nerve atrophies, although atrophy is one of its conspicuous features. It differs from them in that the cupping of the nerve head is incon-

sistent with the advance of atrophy; that the disk is surrounded by a scleral or white, and not a choroidal or pigment ring; that limitation of the nasal is more pronounced than that of the temporal field, and irregularly placed and sized scotoma are not infrequent; that it is favorably influenced by myotics and operation (see Randall, *Jour. Amer. Med. Assoc.*, Nov. 7, 1896). This brief and imperfect enumeration of some of the facts that disassociate the simple or non-inflammatory type of glaucoma from the inflammatory forms and from atrophy of the optic nerve and place it in a class by itself, are worthy of consideration in the projected treatment of every case. Great diversity of opinion may be found in the writings of clinicians as to the efficacy of the various remedies. Some, among whom may be mentioned Cohn (*Berliner Klin. Wochensch.*, May 27, 1895); Abadie (*Arch. d' Ophthal.*, Nov., 1895); and Simi (*ibid.*), agree that the daily use of solutions of eserine sulfate, gr. $\frac{1}{2}$, is indicated. The first writer claims to have retained full acuity of vision and normal fields for a period of 14 years. On the other hand, Nettleship (*Brit. Med. Jour.*, Oct. 19, 1895) urges iridectomy without delay; and Ramsey (*Glasgow Med. Jour.*, Vol. xliii, No. 4), as soon as the diagnosis is established. Wicherkiewicz (*Klin. Monatsb. für Augenh.*, May, 1896) recommends first eserine, then sclerotomy, finally iridectomy. Our own experience is opposed to immediate iridectomy, for the following reasons: (1) Iridectomy on one eye has been known to precipitate an attack of acute glaucoma in the second eye. (2) In order to be of value the artificial pupil should include one-fifth of the iris. The astigmatism consequent upon

the corneal incision and the irregular refraction of the extra-pupillary portion of the lens are detrimental to good vision. It not infrequently happens, also, that cortical opacities of the lens coexist with simple glaucoma. (3) Malignant glaucoma, rather indefinitely described by Schweigger (*Arch. of Ophthalm.*, April, 1896), and accurately defined by Friedenwald (*Arch. of Ophthalm.*, Oct., 1896), as a painful and nearly always incurable blindness, following the operation of iridectomy for glaucoma, may be encountered. (4) Eserin, a painless application that may be continued for years without danger, is of indubitable value.

The brief history of a case that has been under observation for five years will serve to illustrate the efficacy of eserin and the uncertain value of iridectomy: Mr. S., aged 52, complained in 1891 of diminution of vision for far and near. R. $\frac{3}{8}$, L. $\frac{3}{8}$, brought to the normal by low-power minus cylinders.

Both disks were cupped over their entire surface. The filleds were concentrically contracted, but only moderately so. Until very recently vision and filleds have remained unaltered through the use of gr. $\frac{1}{2}$ solutions of eserin, applied once daily, and the patient has been able to use his eyes without discomfort. A few weeks ago the eserin seemed to have lost its power. Double iridectomy was performed. The healing in the L. progressed without incident. On the second day after operation on the R. vision was totally abolished in that eye for a short time. The wound was closed, the anterior chamber re-established, and the eye very slightly congested. Under hourly instillations of 1 gr. solutions of eserin, vision returned to its previous acuity in two days. Here, then, is an instance of retention of vision for four and one-half years by the constant use of eserin and of an acute glaucoma precipitated by iridectomy.

Society Proceedings

PHILADELPHIA COUNTY MEDICAL SOCIETY.

Stated Meeting, December 9, 1896.

THE PRESIDENT, DR. J. C. WILSON, in the Chair.

DR. EDWARD MARTIN presented a communication entitled

"AMBULANT TREATMENT OF FRACTURES OF THE LEG,"

and demonstrated the method of applying the dressing, also exhibiting patients. The method of treatment consists in so applying the plaster dressing that a patient, instead of being confined to bed for five or six weeks, can get about and attend to any light occupation. The dressing had been applied to twelve patients in the last six or eight months, and it was hoped that all would be present, but only five were able to come. Dr. Martin has employed the dressing in upwards of thirty cases and the results have been good. There were two cases in which the results were not thoroughly satisfactory, but in these Dr. Martin did not apply the dressing personally. One

was an instance of Pott's fracture. The deformity was not greater than is often noticed after treatment by the fracture-box, but there should have been none. The other was one of compound fracture, for which the patient was operated on. The wound healed kindly at first, but later it broke down and the fracture was found to be ununited. The bone was then cut down upon, and a portion of the tibial shaft, about two inches, resected. A few days after the operation, as the operation wound was running a sterile course, Dr. Martin directed an ambulant dressing to be applied. The patient was up and walking five days after the operation, and he apparently did well, the bone uniting, although there was some deformity. Dr. Martin has never used the dressing for fractures of the bone above the knee, and, with the exception of the last case, all have been simple fractures.

The first patient exhibited was a boy, who was run over by a bicycle, and both bones of the leg were broken at the middle third. There was no difficulty in replacing the bones in good position, and an ambulant dressing was put on a few days after the injury. After the plaster was applied there was no pain, and the patient has been walking ever since—that is seven weeks ago. There seems to be less stiffening and after-trouble than is common when the fracture-box is employed. The boy has been very comfortable and has been saved a long confinement in bed. The first dressing applied broke, because of poor plaster, and a second one was put on about ten days later.

In the second patient, a boy, the first dressing was poor and a second had to be applied. The latter was worn for five weeks. The union is perfect and there is no disability.

The third case was one of fracture of both bones of the leg at the middle third, during a fight. The patient began walking the day after the application of the dressing. He has been coming to the dispensary to be dressed, and has been saved several weeks in bed.

The fourth case had a Pott's fracture; the patient began walking the next day, but had some pain.

The last case was in an old woman, who fell down stairs some three or four months before, breaking the upper third of the tibia and fibula. There was very little deformity, and the dressing was applied promptly. She had less use of the dressing than any patient that Dr. Martin has thus treated. She could not walk without a crutch or chair. She did not go home for three weeks. She did not complain of pain, but did not seem able to manage the large, heavy dressing. The day following the application of the dressing, the second after her accident, Dr. Martin took her by the hand and led her up and down the ward, but the walking was not rapid or easy. Perhaps the best thing the dressing did for this patient was to shorten her stay in bed and allow her to go home and walk about one or two weeks sooner than she otherwise would have done. She presented absolutely no deformity; nor did any of the cases.

The cases presented were not selected by any means, and represent very clearly what can be expected from the dressing. The first

proposition to treat fractures by the ambulant method was made by Bardeleben, in 1894, and, following him, a number of German surgeons tried it. Bardeleben reported upwards of 111 cases. Some of his colleagues reported a number of others, so that the total number was 200. Since that time Dr. Martin has had upwards of thirty cases of his own.

The Germans apply the ambulant dressing not only for fractures of the leg, but also for simple and compound fractures of the thigh. Some students of Dr. Martin's in Germany, at the time of Bardeleben's first report, reported that the results in fracture of the thigh were unsatisfactory, marked deformity often resulting. The principle on which this dressing is applied is that of fixation and shifting of support. Given a fracture of one or both bones of the leg, as soon as the weight is thrown on the foot there is, of course, a tendency to overlapping of the bones. If the weight of the body could be carried from above the fracture to the ground by external supports, as by means of a plaster case passing from the knee-joint to below the sole of the foot, the tendency to overlapping would be at once corrected. If, at the same time, the weight of the body could be not only kept from causing overriding of the fragments, but could also fix the fragments in good position, there seems to be no good reason why patient should not use his leg. This is accomplished by the so-called ambulant splint; the plaster is so applied that the weight of the body is carried from the tibial tuberosities just below the knee, to the reinforced portion of the dressing lying below the sole of the foot, pressure upon the malleoli being avoided by abundant cotton padding. This dressing fixes both the joints contiguous to the fracture. It is, perhaps, open to a serious objection, as it entirely prevents the use of massage. It is inapplicable to certain cases, *e.g.*, when there is great swelling, when the shape of the leg is such that the weight cannot be carried from the tibial tuberosities to the rigid dressing that envelops the leg (this is particularly the case in very fat women with small bones). In most instances of simple fractures of the leg, when reduction is possible, either with or without ether, and when the swelling is not marked, the dressing is the most satisfactory that can be used.

The dressing should be applied as soon after the fracture as possible. It requires abundant padding with some elastic material. It must be so arranged that the plaster does not press into the malleoli, and the plaster must be neatly fitted below the knee; it should be worn from four to six weeks. On the day following the application of the dressing, the patient is gotten up with the help of an assistant or a friend, who takes him under the arm and assists him in walking up and down the ward. The Germans use an apparatus very much like the walking device provided for children, the patient standing inside a sort of cage which is on wheels. In a day or so walking is possible with two crutches; in another day, with one crutch, and in a week the patient can usually get along with a cane or without any support. It is scarcely rational to apply this dressing to a hod-carrier and expect him to be able to continue his employment at once; but a man can attend to ordinary business pursuits.

Another advantage of the dressing is that less atrophy follows than after the use of the ordinary fracture-box or plaster dressing. Dr. Martin held that the fracture box is a poor dressing. Even if the patient is lying in bed the plaster is best. The atrophy is a manifestation of a reflex neurosis, as has been proved by experimental research. The great advantage inherent in the plaster dressing is that it enables the patient to be up and about, and that anyone who realizes how irksome it is to stay in bed when it is not absolutely necessary, may, perhaps, save these patients four or six weeks of lying on their backs.

As to the direct method of applying the dressing: In the first place the plaster must be fresh and that is often a very great trouble in plaster bandage. It is better made in a coarser mesh of gauze than that used for the ordinary surgical bandage. A lot of cotton batting should be provided and the fracture must be reduced. A mistake is often made in not etherizing more frequently than is done in the treatment of fractures. The first essential is thorough reduction. When there is swelling and the patient is sensitive there is a great temptation to trust that reduction is accomplished without making this perfectly apparent. In perhaps the majority of cases in applying this plaster bandage Dr. Martin gives ether. He always does this when it is

not absolutely certain that the bones are not in proper position. The leg is then enveloped in a flannel roller, as is customary in the application of all plaster dressings; the cotton is wrapped about and then the plaster is applied. For the purpose of flanging out the lower part of the plaster and giving a little more strength, Dr. Martin has had made some slightly flexible steel rods, such as are used in orthopedic work for bracing shoes. They are flexible so that they can be moulded to the desired shape. In putting on the dressing it is essential that the toes should point a little up. If they drag they are liable to strike things. The heel should be a little lower than the toes. A child of eight or ten years of age requires a flannel bandage two inches wide. The foot is covered in, no reverses being employed. In putting on the cotton batting it is well to tear it off the required width and it rolls out very much like a bandage. The malleoli are thickly padded, so that the plaster may be prevented from falling in and pressing at these points. At the kneejoint when the plaster should bear pressure the batting is thinner. If the surgeon intends to take the plaster off himself it is well to partly cut it and for that purpose a lead strip is needed. The sole of the foot is padded with a mass of cotton at least three inches thick. The plaster is now ready for application. The first two turns take in the padding on the sole and keep it in the middle line. In applying this bandage a little tighter pressure is employed than with an ordinary plaster bandage as, because of the thick padding, the parts will stand it. When the patient is placed under the influence of ether, he must be kept under until the dressing is hard. The bandage runs up to a little above the knee. Having closed in the cotton the external metallic splints are applied. These are moulded to the part and covered in with more plaster. The patient is kept perfectly quiet and the toe is held up until the plaster hardens. In another twenty-four hours the patient is allowed to put the foot to the ground. While the plaster is still moist a knife is run along the line of lead strip leaving several bridges, which should be marked by pencil before cutting. When the time comes to remove the plaster the bridge is simply cut through by a pen-knife and the dressing will spring off.

THE PHILADELPHIA POLYCLINIC

Brief, practical, original articles, and news of general professional interest are solicited for publication in this journal. Contributions accepted will be paid for on publication, or, if desired, 250 reprints will be furnished in lieu of other compensation.

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PHILADELPHIA, JANUARY 2, 1897

INFUSIONS AND FLUID EXTRACTS.

SOMETIME ago the writer of this received from a well known and highly respected firm of manufacturing pharmacists a circular letter, calling attention to the superior quality of the fluid extracts made by this firm, and requesting him to specify them in prescriptions. The letter was accompanied with samples of the fluid extract of aconite root, the fluid extract of ergot, and the fluid extract of digitalis.

On the label of the fluid extract of aconite root was the following direction:

TO MAKE TINCTURE U. S. P., 1890.

Take of fluid extract, 350 c.c. (11 f.ozs., 400.7 min.)
Alcohol, 85 per ct., to
make 1000 c.c. (33 f.ozs., 390.6 min.)

On the label of the fluid extract of ergot was the following:

TO MAKE WINE.

Take of fluid extract . . . 150 c.c. { 5 f.ozs. 127 min.)
Alcohol 150 c.c. { 5 f.ozs. 127 min.)
White wine, to make . 1000 c.c. (33 f.ozs. 390 min.)

TO MAKE INFUSION.

Take of fluid extract 7.39 c.c. (2 f.drs.)
Hot water, to make 295.75 c.c. (10 f.ozs.)

On the label of the fluid extract of digitalis was the following:

TO MAKE TINCTURE.

Take of fluid extract . 150.00 c.c. (5 f.ozs. 35 min.)
Dilute alcohol to make 1000.00 c.c. (33 f.ozs. 390 min.)

TO MAKE INFUSION U. S. P., 90.

Take of fluid extract . 15.00 c.c. (½ f.oz.)
Alcohol 100.60 c.c. { 3 f.ozs. 183 min.)
Cinnamon water . . 150.00 c.c. { 5 f.ozs. 35 min.)
Water, to make . . 1000.00 c.c. (33 f.ozs. 390 min.)

A letter was sent to the firm, calling attention to the fact that tinctures and infusions could not properly be made by dilution of fluid extracts. Especial attention was directed to the case of digitalis. The pharmacology of digitalis, it is true, is yet obscure; but it is well known by pharmacists and by physicians that the drug contains a number of principles differing in their physiologic actions and in their solubilities. Some are soluble in both water and alcohol, though in different proportions; others soluble in water but not soluble in alcohol; and still a third group are soluble in alcohol but not soluble in water. The different therapeutic effects which have been observed to follow the use of different preparations of the drug, are unquestionably to be explained in some measure by this fact.

At our request, Mr. Joseph W. England, chief druggist of the Philadelphia Hospital, and editor of the *Alumni Record of the College of Pharmacy*, has prepared a brief paper, setting forth in detail the most important facts in this connection; and we direct the attention of our readers to that excellent paper, which appears in this number of the Philadelphia POLYCLINIC.

It is evident from the facts adduced by Mr. England, that to make a tincture by diluting a fluid extract, is to make a preparation which is not properly described by the name tincture, and which, if dispensed upon a prescription calling for a tincture, will fail to give the therapeutic result desired by the physician. Still more flagrant is the crime (for we know no other word to properly

characterize it) of dispensing in place of the recently prepared infusion of digitalis, made according to the directions of the U. S. P., which physicians expect to get when they so direct upon their prescriptions, a fluid extract diluted with water and alcohol, and flavored with cinnamon, as advised in the label we have copied. The preparation dispensed contains, probably, several active principles, and certainly one very toxic principle, which the physician does not wish when he prescribes an infusion; and it omits or changes injuriously some of the most active of the principles upon which he relies to produce the physiologic and therapeutic effects that are to benefit his patient. It is more especially in cases in which, through cardiac or renal failure, or both, urinary secretion and excretion have been interfered with, that this preparation is employed. Its superiority over both the tincture and the fluid extract of the same drug for the purpose of restoring urinary function and averting the evil consequences of the failure of that function, is attested by clinical experience which cannot be shaken. This is not due merely to the fact that comparatively larger doses are given of the infusion than is the practice with the tincture or fluid extract, but on account of its different composition. Some physicians, indeed, prefer the whole drug to any partial representative, and for that reason add a few drops of the tincture to the ordinary dose of the infusion; a practice rendered not only useless but dangerous, if the preparations dispensed as infusion and tincture are merely differently diluted fluid extract.

From any point of view, it is evident that if the physician decides that the infusion of digitalis is the preparation necessary to restore comfort to his patient, to carry the patient safely over a threatening period, perhaps to save life, and so prescribes, and the druggist receiving this prescription violates the obli-

gation of his profession, and betrays the trust reposed in him by physician and patient by dispensing, instead of the infusion ordered, such a preparation as is recommended to be made on the labels quoted, a grave moral responsibility rests not alone upon the delinquent druggist, but likewise upon the manufacturers and wholesalers, who have instructed him in what manner he may attempt the deception. We have not investigated the legal aspect of the question; but if no law exists against such delinquencies, one should be passed to make them penal; imprisonment, and not mere fine, being the penalty attached.

The firm to which we have alluded, and which is a reputable and responsible one, replied to the letter directing their attention to the matter, as follows: "Our use of this label (and the same explanation applies to other labels) is, that there exists a demand by a large portion of the retail drug trade for labels that will furnish them with the means of quickly and easily making up preparations of the nature of tinctures and infusions. We do not, for a moment, intend to defend this practice, and regret it. So far as concerns our own course, we would say that it is necessary for us to consider the commercial aspect of the question; and so long as we furnish the best preparations possible, and in the case of all alkaloidal extracts assay and standardize them, it seems to us that our course is justifiable."

We are unable, however, to accept this view. The question is one of human life; and that should have no "commercial aspect." We very much regret to believe that so "large a portion of the retail drug trade," as this letter would imply (and as appears from the further fact that nearly all, if not all other firms of manufacturing pharmacists issue similar directions), or, indeed that any great or small number of apparently reputable apothecaries is engaged in the dishonest and

dangerous practice we have herein reprobated. We shall be very glad to hear from any of our pharmaceutical exchanges upon the subject.

S. S. C.

Editorial Note

Dr. Gould's "Address."—We call attention to the very important address to the members of the medical profession by Dr. George M. Gould, which appears in another column. In a future issue of the POLYCLINIC, we shall take occasion to comment upon the subject. Meanwhile, we invite correspondence from our readers, to whom we commend the course advised by Dr. Gould.

In the Clinics

Under the Editorial Charge of DR. W. OAKLEY HERMANCE.

In treating *persistent furunculosis*, Dr. Cantrell referred to the internal use of ichthyol and arsenic sulfide; giving of the former from 3 to 10 drops in capsules thrice daily, while the latter may be advised in doses of from one hundredth to one twenty-fifth of a grain thrice daily.

In the new clinic of Dr. Makuen there have been treated thus far cases of in-patients ranging all the way from 8 years of age to 53 years, and comprising a wide range of *speech defects*, from the slightest lisp to the most severe case of stammering.

One case was particularly interesting, from the fact that the patient had stammered continuously since a fall at 8 years of age, except for one period of three weeks, following a miscarriage, when she was free from the defect in her speech.

Dr. Makuen considers the majority of these cases curable.

DR. TALLEY prefers a *soft soap for anointing* the fingers before making vaginal examination and for lubricating the vaginal speculum. It is prepared by dissolving castile

soap shavings in warm water. If the vessel containing the soft soap be surrounded by hot water for a few minutes before it is used the contents will be of thin consistence, resembling olive oil. The advantages of using this emollient are, that it helps to clean the vaginal mucous membrane and readily washes off when it is desired to medicate it. If cosmoline or other greasy substance be used the vaginal membrane becomes smeared and much difficulty arises in removing it so that the medicines used may come in direct contact with the mucous membrane.

DR. J. T. CARPENTER, JR., called attention to the value of the *salicylates in inflammatory affections of the eye ball*, whether presenting the typical symptoms of episcleritis or not. In a patient, a young woman, aged 24, with acute hyperemia of both palpebral and ocular conjunctiva without infiltration of the scleral or episcleral tissues, the eye ball was found to be very tender to the touch, causing involuntary shrinking on the part of the patient when the eye-ball was palpated for estimation of intra-ocular tension. There was no evidence of iritis, as cocain caused dilatation of pupil *ad maximum*. There was some supraorbital pain and the patient had frequent attacks of dyspepsia, and occasionally of tonsilitis. The conjunctival secretion was increased in quantity with but little qualitative change. Photophobia was intense. Under full doses of salicylates, which in twenty four hours produced the usual physiologic effect, the eye became entirely white and painless within forty-eight hours after treatment had been instituted. Although the value of salol in some cases of rheumatic disease is undoubted, Dr. Carpenter has found the sodium or ammonium salicylates more rapidly efficacious. This has been especially true in cases of gouty ocular affections, whether deep-seated or superficial.

Correspondence

A STRANGE CASE OF LABOR.

To the Editor of *The Philadelphia Polyclinic*:

ABOUT twenty years ago I was called in consultation to see a case of labor under the care of a neighboring physician. When I saw the case I found that the head, shoulders and hips were outside of the vulva. The child was dead. I took hold of it and found it was immovably fixed. What could be the trouble? I requested the attendant to administer an anesthetic. Still it remained fixed as before. I then took hold of the child with the left hand and passed two fingers of the right hand up the vagina, and instantly the cause of the trouble flashed upon my mind. The face of the child was towards the mother's abdomen and the soles of the little feet rested upon the promontory of the sacrum and the thighs of the child were against the os pubis of the mother. The antero-posterior diameter of the pelvis being less than the distance from the soles of the feet to the anterior part of the thighs of the child, any traction upon the child only increased the difficulty. I pushed the feet from their peculiar position, and the labor was completed at once. The case was new to me. I had then practiced medicine over twenty years and had never seen or read of such a case occurring in obstetrical practice. Is there such a case on record?

A. M. COOPER, M.D.

Point Pleasant, Pa.

[The case which Dr. Cooper reports, while unusual, comes under the head of impaction of the fetus, and could only occur in prolonged labor where the waters had been drained off for some time, and the uterus was in a condition of exhaustion tetanus. The principle involved is that of the wedge, and in cases of this sort it is not unusual to find the fetus with some of its limbs so doubled as to form with the trunk a wedge, the broad end of which is impacted in the pelvic brim. The principle of treatment to be adopted in these cases is to dislodge the wedge, and this is best performed by displacing a portion of it so that the size of the wedge is lessened, if it be ever so little. It required in this case but a very slight disturbance of the fetus to unlock the child and cause birth to proceed. Complete anesthesia is often required to relax somewhat the spasmodic grip of the uterus upon the fetus.

EDWARD P. DAVIS, M.D.]

News Item

TO THE MEMBERS OF THE MEDICAL PROFESSION.

I would be pleased to have an expression from you, either personally or through some medical journal, as to the relations of the lay publishing firms of medical journals and the profession. The request is suggested by the fact that Messrs. Wm. Wood & Co., of New York, refuse to permit the editors of "The American Year-Book of Medicine and Surgery" to use in our abstracts of Medical Progress articles and illustrations first printed in the *Medical Record* and the *American Journal of Obstetrics*.

This decision seems to me to be wrong for the following reasons:

(1) IT PREVENTS THE DISSEMINATION OF MEDICAL KNOWLEDGE. The Year Book condenses, systematizes, and criticises the year's medical work in a shorter space and more permanent manner than the journals, and has thousands of readers no single journal can claim, or hope, to reach. Every physician writes and publishes articles in order that every member of the profession may, if possible, learn of his work, and that science and progress may thus be furthered and humanity benefited. To interfere with such dissemination of our literature in reputable publications is, I think, discourteous and unjust to the profession and an injury to medical science.

(2) This injustice and injury to medicine become all the more striking when physicians do not receive a cent of pay for contributions, from the publication of which the lay-publisher is supposed to make considerable financial profit.

(3) No other publishers in the world, not even those who pay authors for their contributions, have in the least objected to our reproduction of quotations, abstracts, and illustrations from their journals.

Do you wish to limit the dissemination of your contributions to medical science by such an exclusion of them on the part of publishers from reputable publications? IS THIS LITERATURE THE PROPERTY OF YOURSELF AND OF THE PROFESSION OR NOT? Does your gift of it to a journal make it the private property of the publishers of that journal? Is it not rather a loan for temporary use only?

Will you not hereafter demand that there be printed with your article a statement that the right of abstracting the text or reproducing illustrations is guaranteed?

Sincerely yours,

GEORGE M. GOULD,
119 S. 17th Street, Philadelphia, Pa.

December, 1896.



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THE PHILADELPHIA POLYCLINIC

VOL. VI—No. 2

JANUARY 9, 1897

THE EXPERIENCE OF A VEGETARIAN.

BY FLORENCE A. BURLEIGH, Philadelphia.

If any one had told me six years ago that I should within a year become a vegetarian, I should have disclaimed any such notion. But, at the request of vegetarian friends, I looked up the subject and was convinced first, that meat is not, as in common with many others I had supposed, necessary to sustain health and strength; second, that the practice of killing animals for food necessarily involves great cruelty to the animals and embroiling of the men employed.

I have often been asked, "What *do* you eat?" and, in this article, I shall try to give briefly some proofs that people can be well and strong without eating animal food, and, also, suggestions as to articles of food to maintain a sufficient and tempting variety. Naturally it must sound a little egotistic, owing to the necessity of writing in the first person singular.

It is usually said that people in warm countries can live without meat, but that dwellers in northern climates need it. This statement is disproved by the fact that the peasants, not only of Egypt, India and other warm countries, but of Poland, Russia and Norway, as well, have practically no meat. The Irish certainly have little. The diet of the Greek athletes of old was "figs, nuts, cheese and maize bread, without wine." The physical labor accomplished by the non-meat-eating peasantry of countries of all climates is enormous and is done without seeming fatigue. The herbivorous animals are far superior in strength to the

carnivorous, while the latter are much more ferocious. "The carnivora, indeed, possess one salient and terrible quality, ferocity, allied to thirst for blood; but power, endurance, courage and intelligent capacity for toil belong to those animals which alone, since the world had a history, have been associated with the fortunes, the conquests and the achievements of men." If this is true of animals is it not reasonable to think that meat-diet must have a strong influence on human beings? "It must not be forgotten that the kreophagist nations constitute little more than a quarter of the human race, and it is precisely among this fourth part of mankind that the greatest amount of misery, crime and disease is found." Numberless examples might be given, if space permitted, in which men have shown astonishing strength and endurance entirely on a simple diet of bread, or rice, or lentils, without meat.

While it is not safe to generalize from individual cases I should like to mention two within my personal knowledge. One is that of a boy in his teens, who, in spite of great opposition, had been converted to vegetarianism. He had never been able to attend school without being absent for several weeks during the year because of sickness. After ceasing to eat meat, he did not lose a day. The other case is that of an invalid young lady who had continual need of a physician's services until she became a vegetarian. From that time up to the present—a period of

nearly four years—her only need of medical advice was during a short lapse to the old way. While such facts are not necessarily conclusive, they are, at least, suggestive.

From the humanitarian standpoint, there can hardly be a question in the minds of thinking men and women as to the right of the case. When it is known that men employed in the large slaughter-houses of the West are not considered fit for jurymen on murder trials because of their brutal natures, one may well stop to ask himself if it is right to encourage a custom that makes such cruelty and embroiling necessary. It is not my province, nor is it necessary, to give here the details of the horrors and cruelties practiced in the slaughter-houses; neither is it necessary to more than mention the danger to life and health from eating diseased meat. I merely suggest these in order to show that vegetarians do not give up eating meat just for a whim.

In answer to the question, "What do you eat?" I would reply that we use all the vegetables in varieties of ways—plenty of fruit, especially apples baked and raw, and nuts of all kinds. Many persons say they find nuts indigestible, but it is usually because they eat them after a hearty dinner which has already sufficiently taxed the stomach. Make nuts a part of the meal and in a majority of cases they will be digested if properly masticated. Two things must be remembered: that it is not necessary to eat more than under a meat diet, and that one cannot simply drop meat from the bill of fare and add nothing to take its place. For instance, if beefsteak and potatoes have constituted breakfast, simply leaving out the meat would be unwise. But if a saucer of some good preparation of wheat with cream be substituted the breakfast will be found all-sufficient, especially if, as is the case with many, there is a first course of fruit.

I have discarded oatmeal entirely, and use

for cereals wheat germs, wheatlet, a delicate preparation of hominy called "snowdrift," shredded wheat biscuit and certain preparations of a well-known Western company, which we think very delicious as well as valuable. If one doesn't have to spend from twenty-five to fifty cents for steak or chops she can easily use ten cents for cream, and still save money. Although shredded biscuit are so very generally used I shall, nevertheless, mention that our favorite way of using them is to heat them, pour over enough hot milk to soften them in the saucers, and then use all the cream the conscience will allow. Sugar on cereals we never use, as we much prefer the natural sweetness of the wheat. The granola and granose flakes of the house referred to are used in the same way as the shredded biscuit, although the heating is not necessary.

Croquettes are made of almost everything and fried in cottolene. Some prefer olive oil. One favorite kind is made of split peas and potatoes, the peas alone being too heavy. The peas are boiled to the consistency of mush, and then nearly an equal quantity of mashed potato added. One seasons with salt and pepper or a little curry for a change. To be made especially delicious, there should be added half a cupful of pounded peanuts. Croquettes made of rice and seasoned with nut-butter, using perhaps a tablespoonful of the butter to a dozen croquettes, are better than those of plain rice. This nut-butter is a useful addition to soups and gives a rich, nutty flavor wherever used. Chestnut croquettes are made by blanching the nuts and boiling for a quarter of an hour, then using potatoes, as in the case of split peas, and for the same reason. Raw peanuts may be used instead of the chestnuts, but must be boiled longer and pounded as they will not soften like the chestnuts. Croquettes may also be made of beans, oyster-plant, parsnips, hominy—in fact, anything properly seasoned and well fried can serve.

Of soups there is also a variety; the purées of split peas, beans, etc., all the cream soups, celery, corn (I use the grated corn), green peas, etc.; a delicious vegetable soup is made of a turnip, two potatoes, a carrot, a few sticks of celery, a little tomato and corn or beans that happen to be left over. The raw vegetables are cut into dice and cooked until soft, then the others added. The number and kinds of vegetables can be changed according to circumstances or taste. All these soups are of course without stock. Potato soup without milk can be made richer by pouring it boiling hot over an egg broken into the tureen and stirring rapidly while pouring.

Most of the vegetables can be used for salads, especially with celery salad, if one part English walnuts to two of celery is used with a mayonnaise dressing the result will be surprisingly good.

Delicious sandwiches are made of pounded nuts mixed with a little hard-boiled yolk of an egg and salad dressing spread on thin slices of buttered bread. People are more and more realizing that white bread is not nourishing because the most valuable part of the wheat is removed. The entire wheat flour is supposed to contain all the nourishing part of the wheat without the hull and lately we have found Prof. Hart's flour still more acceptable. White bread is never seen on our table except occasionally for guests, and they usually prefer the better kind.

One thing more I wish to mention as a valuable article of food, and that is what is commercially known as "nuttose." It comes in small cans and is very delicious and concentrated. It is good sliced plain or warmed with a brown gravy. A piece the size of two fingers is almost a meal in itself.

All the "weeds," like celery, lettuce, spinach, etc., are useful and palatable additions to any table and in these days can be obtained at all seasons of the year. Some read-

ers may ask how we make plum pudding and mince pies without meat? I reply that these are mixtures not fit for any ordinary stomach. The appetite for highly seasoned food and rich mixtures is not a natural one, and a simple diet is much better. Pies for dessert will soon be a thing of the past and their place will be filled by fruits and delicate desserts like blanc-mange. Usually the dessert is just so much more than the stomach can well digest, especially if there have been several courses. When one sees the ordinary bill of fare of the average home he wonders, not that the children begin young to have dyspepsia, but that they live at all. If we could only rid our minds of the old prejudices we could more easily assimilate new ideas.

This article has of necessity been conversational, and perhaps rambling, as there has been no attempt at a scientific treatise on vegetarianism. It has been written merely to show how one vegetarian lives and has not only a varied and attractive and nutritious diet but is better able to think and work than formerly. At first, perhaps, more attention and thought are needed in the catering, but the remark is often made at our table that "we live better and more cheaply, and have more variety than formerly." It is very easy for a housekeeper to ring the changes on mutton and beef with an occasional fowl or piece of veal. The stomach needs variety and change as much as does the brain, and when once the break is made it will be as easy to cater to the tastes without meat as with and the animals will be much the happier.

In reply to the so-called argument that we should be over-run with animals if we did not kill them, the reply is that to day animals are bred for the very purpose of killing them. If that were stopped we should have fewer animals. We don't eat cats to lessen the number. Another argument is that in the animal world the higher orders feed on the lower. That is so with carnivorous animals, but not

with the herbivorous. But even if that were true, must we take the brute beasts for our moral guide? Every objection can be met and confuted, and the day will come when

"None
Shall spill the blood of life nor taste of flesh,
Seeing that knowledge grows, and life is one,
And mercy cometh to the merciful."

PAINLESS IRITIS—WITH A REPORT OF TWO CASES.

BY GERTRUDE A. WALKER, A.B., M.D.

Clinical Instructor in Ophthalmology at the Woman's Medical College of Pennsylvania, Assistant Ophthalmologist to the Woman's Hospital, etc.

PAIN is so usual an accompaniment of iritis that its absence may lead the physician to overlook the disease. A somewhat inflamed eye which causes the patient not enough annoyance to interrupt his daily work or disturb his night's rest is not, as a rule, regarded as a serious matter, and for this reason cases of painless iritis do not often come under medical observation until after considerable harm has been done. This "quiet" iritis of Hutchinson is in reality the most dangerous form, because it is insidious. Diminution of vision is usually not marked, and may be entirely unnoticed by the patient. The objective signs are so mild in character as to easily escape observation. Since painless iritis is not rare, it is probable that the many familiar examples of old posterior synechiæ which are not associated in the patient's memory with an attack of ocular inflammation are instances of this unobtrusive but destructive variety of the disease. The affection which it most closely simulates is acute catarrhal conjunctivitis. The patient thinks he has "caught cold in the eye," or that dust has blown into it. Only a very close scrutiny of the anterior part of the eye will show slight haziness of the cornea (caused by deposition of exudate on Descemet's membrane) and infiltration of the crypts of the iris; and only most careful comparison of the two irides will convince the observer that the iris of the affected eye is more sluggish in action than that of the other, or that the pupil is unequally contracted. A drop of

homatropin will usually set all doubt at rest. If the case is primary and recent, the delicate adhesions may be readily broken by the action of the mydriatic.

Two cases of this type have recently come under the observation of the writer.

CASE I.—A woman, 40 years old, a ward-patient at the Woman's Hospital, under treatment for inflammatory rheumatism, affecting particularly the lower extremities, complained of slight burning and itching of the eyes. The patient was examined while in bed. Slight palpebral conjunctivitis was present; the ophthalmoscope showed clear media and normal eyegrounds. A collyrium was prescribed and refraction advised. About two weeks later, as the patient complained of continued irritation of the right eye, she was again visited in the ward. She said she had no pain, only a sensation as of a foreign body in the eye. Examination for a possible foreign body revealed none. The only suspicious sign of trouble was found in the irides, which responded but feebly to light. The presence of this sign, together with the evident rheumatic diathesis, suggested the use of a mydriatic. Two days later the patient was seen again. The pupils were unevenly dilated, tags of iritic adhesion occurring at numerous points in each eye. Careful questioning elicited absolutely no history of any previous attack of inflammation, and upon consultation with a well-known ophthalmologist, who had refracted the patient under mydriasis three years before, it was found that at that time there were no synechiæ. In all probability, this was the primary attack, yet the patient had not suffered as much discomfort as is usual in acute conjunctivitis.

CASE II. (Reported by courtesy of Dr.

William Thomson).—A man, 44 years old, presented himself at Wills Eye Hospital, stating that the left eye had been red for about a week. He thought he had taken cold. He had no pain, slept well, worked regularly at his trade as machinist, was conscious of no diminution of vision. The pupil was about 3 mm. in diameter, cornea clear (apparently), iris of normal color, tension normal. There was moderate ocular congestion, but no pericorneal zone. By oblique illumination, the iris was found to be sluggish in its response to light. For the purpose of diagnosis, homatropin was instilled, and it was then found that an annular

synchia had been in the process of formation. The pupil having been dilated, a complete ring of deposited pigment from the torn iris could be clearly seen. In case this patient had not sought medical aid, exclusion of the pupil would probably have occurred, with secondary glaucoma as a probable result.

Too much stress cannot be laid upon the wisdom of a close and methodic examination of all inflamed eyes. Subjective data are often valuable, but by far more important are the objective phenomena which the conscientious surgeon learns to recognize.

Society Proceedings

PHILADELPHIA COUNTY MEDICAL SOCIETY.

DECEMBER 9, 1896.

THE PRESIDENT, DR. J. C. WILSON, in the Chair.

DR. THOMAS J. MAYS read a paper entitled:

THE LOCAL APPLICATION OF COLD IN ACUTE PNEUMONIA; BEING THE THIRD COLLECTIVE REPORT, WITH A DISCUSSION OF FEVER IN THIS DISEASE.

Dr. Mays summarized the reports of the tables which showed, among other things, that in seventy-six cases of single and fifteen of double pneumonia (croupous and catarrhal cases not being separated), one hundred and four cases in all, only three died—giving a mortality rate of 2.88 per cent. The ages of those who died were 28, 40 and 76 years respectively. Out of the total number of 299 cases, so far collected, there were ten deaths, giving a total death rate of 3.35 per cent. He then discussed at length the general nature and pathology of fever, and, afterwards, in connection with other neighboring lesions, its special bearing on pneumonia from the therapeutic standpoint that is here assumed.

Fever is always evidence that the function of heat co-ordination is disorganized and has lost its power of restraining heat-production or heat-dissipation, or of both, and is *per se* a morbid process. Fever may be compared to a heart whose beats run wild when certain cardiac nerves are irritated or disturbed. The heart, under these circumstances, does not beat with greater rapidity because there

is greater resistance to be overcome in front, nor is its strength enhanced, but it behaves in this manner because the restraining influence of some important nerves is crippled. So, fever is a manifestation of depreciated nerve-integrity, and never serves the interests and purposes of health. Not only is fever an ordinary disease, but it has been shown, by Vincent, that the blood of animals that die from the effects of artificial fever, contains a poison that causes convulsions, stupor and death in guinea-pigs, sparrows and frogs.

From these brief considerations it is quite evident that fever is caused by disorder of the heat-centers—the principal ones of which are located at the base of the brain; and it is therefore of great interest to bear in mind the close anatomic relation of these centers to another important center which is located in the same region, and which has a special affiliation with respiration. It is well known that a dog pants to cool himself off through the lungs, and that a fevered animal breathes rapidly in order to increase the rate of heat-discharge through the same channel. Richet, Ott, and other physiologists believe that the rapid breathing under these circumstances is due to the fact that fever-heat stimulates an independent nerve-center at the base of the brain, which has the power of accelerating the respiration-rate, and which they call the thermo-polypneic center.

So, too, there are also very good reasons for believing—reasons that I discussed in my second collective report on acute pneumonia—that the process of pneumonia itself is in a great measure dependent on serious disturbance of the nervous system in which the respiratory nerves and center participate very largely, and hence the increased frequency of breathing in this disease may be due partly to central, and partly to reflex influences. Moreover, in close anatomic contact with the respiratory, the polypneic and the heat-centers, is the convulsive center, and, in this close companionship, we have, perhaps, an explanation why almost all inflammatory diseases that implicate the base of the brain are attended with a frequent respiratory rate, high fever from the onset with little fluctuation, together with convulsions occurring with greater or lesser frequency. Pneumonia and cerebro-spinal-meningitis are prominent examples of such affections, especially when they occur in the infantile period of life. Then, beside the three kinds of centers already spoken of, the oblongata contains another one, viz: the cardiac center, which is invariably involved in pneumonia, and plays a very prominent *role* throughout the course of this disease.

In thus analyzing some of the important pathologic factors in the nervous mechanism of acute pneumonia, the therapeutic indications in this disease are brought out very prominently. These resolve themselves into (1) an abatement of the local process in the lungs; (2) a reduction of fever, and (3) an alleviation of cerebral and general nervous irritation. Now, how are these extensive indications to be met? What is the remedy, or does it require more than one? After due consideration of all the clinical and experimental data, so far as I know them, I believe that cold, applied externally, will meet these demands more satisfactorily than any other measure. Not only will it allay the morbid process in the lungs, but it possesses a direct ameliorating influence on those nerve-centers which, as we have seen, play a responsible part in the pathologic history of acute pneumonia.

The important practical questions that confront us are: How is cold to be applied, and how long is it to be continued? In my

practice it is employed in the form of pieces of ice placed in rubber ice-bags. Others use snow, either in the rubber bags or wrapped up in towels; or apply towels wrung out of cold water. The bags may be wrapped in towels, and, after they are applied over the inflamed area, a broad, thin bandage may be placed around the chest in order to keep the bags in place. This is of special importance when the patient is restless and tosses about the bed. If the disease is confined to the front base on one side, only one good-sized bag will be necessary; but if the exudation extends higher up, or on the side, or on the back, then one or two more bags must be applied laterally and as far back as possible. If the affection is extensive, as many ice-bags as are necessary to cover the whole area must be put on. I have had as many as eight ice-bags on the chest at one time. If the morbid process migrates, as it frequently does, it should be followed up with the ice and covered.

The length of time for which cold is to be used, must, in most cases, be largely determined by the amount of fever present. If the temperature falls to or near the normal point, and shows a tendency to remain there, then the ice may be gradually removed. It is best, however, not to be in too much haste in withdrawing the cold, for, frequently, when this is done, the temperature soon flies up again suddenly, and, under these circumstances, it seems to be more difficult to bring the temperature down than it was the first time. Sometimes, too, the temperature rises suddenly after the ice has been taken off, not because the disease has become active again in the old area, but because it has extended to a contiguous field of lung-tissue. It must be borne in mind, however, that the ice is not employed solely for the purpose of reducing fever, but also with the object of circumventing the exudative process, and of hastening resolution. There may be very little fever present in some cases of pneumonia, yet the destructive changes are going on in the lungs at a rapid rate. Hence, in senile, latent or alcoholic pneumonia, the activity with which the ice is employed must be governed by the impression that is made on the pulmonary disintegration.

THE PHILADELPHIA POLYCLINIC

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PHILADELPHIA, JANUARY 9, 1897

THE LABORATORY OF NEUROPATHOLOGY AT THE PHILADELPHIA POLYCLINIC.

THERE has just been issued in an attractive form the initial report of the Laboratory of Neuropathology of the Philadelphia Polyclinic, reprinted from the *Journal of Nervous and Mental Diseases*, for November, 1896. While this report by no means represents all the work that has been done at this laboratory, even the most casual glance through its pages will be sufficient to show alike to the experienced specialist and to the general physician the importance and careful character of the researches there conducted. The report is issued under the direction of Dr. Aloysius O. J. Kelly, Adjunct Professor of Pathology in the Philadelphia Polyclinic, and Director of the Laboratory of Neuropathology, and most of the specimens upon which the report is based have been furnished by Professors Charles K. Mills and Charles W. Burr, the Neurologists of the Philadelphia Polyclinic Faculty. The articles have been written by Drs. Kelly, John H. W. Rhein (formerly Instructor in Nervous Diseases and now Instructor in Neuropathology), Henry D. Boyer, and Mary Alice Schively,

and are illustrated with careful drawings and microphotographs, the latter by Dr. Schively. Among the most important articles is one upon the lesions of the brain found in a case of acute yellow atrophy of the liver, which is particularly notable on account of the opportunity which it gave to demonstrate pathologic changes in the neuron.

One drawing illustrates irregular swellings or tumefactions of the dendrites, with loss of the gemmulæ, of a pyramidal cell of the cerebral cortex—an early stage of degeneration; and another illustrates atrophy and disappearance of the dendrites, a late stage of degeneration. In a case of senile paraplegia drawings are given, showing the excessive intra-spinal overgrowth of connective tissue and its source of origin, and the sclerosis of bloodvessels and pia mater; and a photograph showing the bloodvessel sclerosis, the associated perivascular connective-tissue overgrowth, the numerically increased and much thickened trabeculæ of connective tissue and the numerous islets of sclerosis in connection therewith. The lesions of the spinal cord, in a case of fracture of the vertebræ, are also strikingly depicted. Among the other interesting illustrations are a series upon cerebral syphilis, showing the changes in the bloodvessels, the membranes, the cranial nerves, and the brain substance; and another series, illustrating the cord lesions in a case of primary combined column disease. The close connection that exists between pathology and clinical medicine has never been better illustrated than in this report, and, indeed, it may well be said that the definite and scientific character of the constant advances made in neurology is due to the fact that neurologists generally are, as a rule, both clinicians and pathologists, and do not separate the two branches of their study so distinctly into life and death observations as other physicians sometimes do.

To bear in mind during the progress of a

case the nature, extent and probable course of the changes taking place in the organs affected by disease, to have a clear picture before the mental eye of the appearance which these organs would present if sectioned and placed under the microscope, including in this not only the condition of the parenchymatous tissue but also of the connective tissue, the vessels, and all other components, will certainly assist one in the comprehension and in the proper management of any case of disease, whether it be a brain tumor, an abscess of the liver, a pneumonia, or a simple catarrh of the bowel. The work which is being done under the direction of Drs. Mills, Burr, and Kelly reflects credit not alone upon them, but upon the institution with which they are fortunately connected, and upon the status of medical science in Philadelphia. The facilities of the laboratory will be cheerfully placed at the service of any physician who may have an interesting specimen that he desires to have carefully studied and reported upon. Exhibition of the specimens and preparations is part of the regular course of instruction in neurology, and demonstrations of the methods of preparation and study, and detailed explanations concerning the general and special significance of the changes observed will be given at greater length in the special laboratory course upon neuropathology under Professor Kelly. Full information may be obtained by writing to the secretary of the faculty, or applying in person to Dr. Kelly at the laboratory.

Editorial Notes

The Doctor and his Journals.—The courtesy and general appreciation which has been extended to the PHILADELPHIA POLYCLINIC by its contemporaries has been one of the most pleasant features connected with our journalistic experience. The following is

clipped from the December 15th issue of our bright St. Louis contemporary, *The Medical Fortnightly*:

"The editorial in a recent issue of *The Medical Fortnightly* on 'The Doctor and his Journals,' has created considerable interest among our subscribers, and a number of letters have been received, asking for a list of journals, which in our judgment would constitute the best collection for a general practitioner. It is a difficult matter to name a list of the best journals when confined to a limited number, and especially as there are so many excellent periodicals for physicians at the present day. The matter we referred to an old practitioner for his decision, telling him that our subscribers wished a list of ten medical journals best suited to the wants of the general practitioner.

"The following is the list he selected. If any of our readers can select a better one, we should like to hear from them:

"*Medical Record, The Medical Fortnightly, University Medical Magazine, Therapeutic Gazette, Archives of Pediatrics, Annals of Hygiene, The Laryngoscope, Annals of Surgery, Archives of Gynecology, and THE PHILADELPHIA POLYCLINIC.*"

* *

Vegetable Diet.—Without desiring to discuss the ethics of vegetarianism, we call attention to the article which appears in another column, from the pen of Mrs. Florence A. Burleigh, of Philadelphia, and which records the practical experience of one who has been able to regain health and do excellent professional work upon a diet from which meat has been excluded. It is often necessary to restrict the quantity of meat taken by patients, and sometimes difficult to arrange for them a dietary to which they are willing to accede. We believe that the hints contained in Mrs. Burleigh's paper will form a useful contribution to this part of the subject of medical dietetics.

BOOKS RECEIVED.

THE PRACTICE OF MEDICINE. By Horatio C. Wood, A.M., M.D., LL.D. (Yale) and Reginald H. Fitz, A.M., M.D. Quarto, pp. 1088 Philadelphia: J. B. Lippincott Company. 1897.

In the Clinics

Under the Editorial Charge of DR. W. OAKLEY HERMANCE.

DR. CANTRELL stated that if *hyperidrosis* were not treated early and relieved, eczema would follow, and this in turn may be followed by a distinct tylosis.

* *

DR. MAKUEN teaches that the first step in the management of a case of *defective speech*, is to examine thoroughly the organs of speech; the lips, the teeth, the tongue, the hard palate, the soft palate, the pharynx, the nasal cavities and the post-nasal space. All irregularities of these organs should be looked upon as possible causal factors and should be corrected at once.

The value of the psychic impression made by an operation should not be overlooked in the treatment of defectives. They seem to require something of the sort to arouse them from their lethargic condition.

* *

DR. D. D. STEWART states that as a result of a number of years experience, he has not found the *intra-gastric* use of *electricity* of utility in cases of *hypersecretion of gastric juice*. He has tried in a good number of cases in the past six years, both the galvanic and the faradic current, singly or combined, with either anode or cathode as the active pole, but has not succeeded in subduing the disorder by this means. Instead of the use of electricity, with, of course, attention to the general condition of the patient, he prefers to rely on other local measures, such as douching with *silver nitrate*, *ichthyol*, and other remedies, with one or all of which he obtains usually prompt results. In cases of atony with hypersecretion, if there be much free HCl, he does not employ intra-gastric electricity. In cases of *atony* without hypersecretion, or in cases of simple diminution of secretory activity, he states it is common to obtain remarkable results with intra gastric electricity used as he employs it.

Current Literature

REPORT ON OPHTHALMOLOGY.

BY HOWARD F. HANSELL, M.D.

Ocular Symptoms in Disseminated Sclerosis.—Kunn (*Arch. d'Ophtal.*, June, 1896,) observed in Prof. Nothnagel's clinic twenty cases of disseminated sclerosis, six of which he made the basis of his paper. The three most common and marked symptoms were: (1) Nystagmus or "intentional tremor or ataxia of the ocular muscles," occurring mainly in fixation or in extreme lateral contraction. (2) Disassociation of the muscles of the eyes, from a transient paralysis producing, in every case, an internal strabismus *without loss of power of rotation*. Its transient character and the apparent inconsistency—a paralysis with full individual function of muscle—is, Kunn claims, the peculiarity of the strabismus of ataxics. (3) The complaint of patients that they are no longer able to read clearly, that dark objects appear in the visual field, and that letters blur and become confused, and yet they retain full or nearly full acuity of vision. This symptom is ascribed to nystagmus of the ciliary muscle, since, under paralysis of the accommodation with atropin and the substitution of the accommodation with plus 5D, the glass being covered, excepting a small pupillary space, with an opaque substance, reading is accomplished without difficulty.

These three characteristic symptoms are not permanent, but disappear and reappear after varying intervals.

Scopolamin Hydrobromate.—Oliver (*Am. Jour. Med. Sci.*, Nov. 1896,) in the treatment of plastic iritis with this drug, has reached the following conclusions: (1) Scopolamin hydrobromate is of the greatest value in the local treatment of the various forms of plastic iritis. (2) The primary reparative action and quieting power of scopolamin hydrobromate as compared with those of similar doses of atropin sulfate in the treatment of plastic iritis are much more promptly obtained with the former than with the latter drug, this being true in the majority of cases even when the latter drug is used in dosages that are equal to quadruple or quintuple the strengths that are employed in the former drug. (3) The dura-

tion of the healing and soothing powers of scopolamin hydrobromate as compared with those of equal doses of atropin sulfate in cases of plastic iritis does not seem to be so lasting with the former as with the latter drug, this being true in the majority of cases, even when the latter drug is used in four or five times the strength-doses as the former. (4) For quick and active measures, which are so eminently necessary in incipient cases of plastic iritis, and during the early stages of inflammatory reaction, scopolamin hydrobromate is to be preferred to atropin sulfate. (5) Where prolonged use of such drugs is necessary, as in many cases of the chronic form of the disease with subacute exacerbations, the alternate employment of scopolamin hydrobromate and atropin sulfate seems empirically to be the best method of local administration that has been devised. (6) As clinically employed, the best salt of the alkaloid seems to be the hydrobromate; the best method of instillation appears to be that which is accomplished by dropping the solution upon the upper corneal limbus whilst the lower punctum is everted and the corresponding caniculus is pressed upon; and the most efficient amount to be used at one sitting is two drops of 1-10 of 1 per cent. strength (1-500) repeated if necessary as often as three times during the course of an hour, and preceded, if desired, as in some instances where there are much irritation and pain, by two drops of a 2 per cent. solution of cocain hydrobromate a few minutes before each instillation of the scopolamin.

Extraction of the Lens in High Myopia.—

In an article on this subject, Vacher (*Ann. d' Oculist.*, July, 1896) credits a Frenchman, the Abbé Desmonceaux, with having advised and performed extraction in cases of "myopia of two or three inches focus," in 1776, notwithstanding modern authors who attribute the first suggestion to himself and Fukala. His conclusions from 37 operations are: (1) Extraction of the transparent lens is a grave operation, which should be performed with great prudence and with the most rigorous antiseptic precautions. (2) Myopia progressing rapidly between the ages of 12 and 16 may be operated on after the age of 12 if there is a large staphyloma and if the number of diopters of myopia exceed the

number of years of the patient. (3) Only one eye should be operated on, and that the more seriously affected. A second operation should not be undertaken until later, and that on the express request of the patient if the myopia continue to progress. (4) After 30 years, myopes of more than 15 diopters being particularly exposed to detachment of the retina, one should not hesitate to extract the transparent lens when the visual acuity permits of it. (5) Extraction of the transparent lens to correct myopia of high degree should be called Desmonceaux's operation.

Obstetrical Ocular Lesions.—DeWecker (*Ann. d' Oculist.*, July, 1896) calls attention to the fact that serious ocular lesions, the different varieties of which have not yet been analyzed, may occur when the presentation of the child is abnormal, in lengthy labor or contracted pelvis as the result of compression of the cranium, of the orbit, or of the eye itself. In a case that came under his observation the orbit was mistaken for the anal orifice and a most disastrous exploration was made with the finger either inexperienced or anesthetized by compression. As a result of compression with forceps muscular paralyses, especially of the 6th nerve, are quite frequent. As the child grows, concomitant convergent strabismus is developed that has been classed in the category of hypermetropic strabismus. Unilateral congenital ptosis may also arise from the same cause and in cases of this character it is well to question the mother as to the nature of the confinement. Direct traumatism is rare. In a case cited the cornea was entirely opaque and the mark of the blade of the forceps traversing half the brow and extending to the parietal bone was an evident witness of the cause of the accident. Under treatment by six subconjunctival injections of 5 drops of 1-1000 solution of sublimate, covering a period of six months, the cornea became almost entirely clear. The prognosis of such cases is good.



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THE PHILADELPHIA POLYCLINIC

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THE LIMITATIONS OF THE USE OF ARSENIC IN THE TREATMENT OF DISEASES OF THE SKIN.

BY JAY F. SCHAMBERG, A.B., M.D.,

Instructor in Skin Diseases, Philadelphia Polyclinic; Dermatologist to Union Mission Hospital.

ARSENIC has long enjoyed the distinction of being the most generally useful remedy in the treatment of the various diseases of the skin. Its virtues have been extolled time and time again, and reiteration has led to exaggeration, so that at the present time arsenic is considered by many to be the catholicon for all dermal evils. The existence of a cutaneous disease, independent of its nature, its stage or its host, is considered by many practitioners sufficient indication for the use of arsenic.

Arsenic is certainly a remedy of great worth in the treatment of skin diseases, yet its powers are limited and its use governed by more or less distinct indications. The indiscreet and the indiscriminate use of any drug is sure to bring it into disrepute, both on account of errors of omission, failure to cure, and errors of commission, injurious effects exerted. Arsenic is a powerful drug and its effect upon the cutaneous system is potent for evil as well as good.

Arsenic influences the skin both directly and indirectly. In the former case it does so by a stimulation of the peripheral nerves, and also by a local action upon the cells of the mucous layer of the epidermis. Experimentation upon frogs has shown that an almost complete peeling off of the epidermis follows the administration of toxic doses of arsenic. Arsenic influences the skin indi-

rectly by stimulating the vaso-motor and trophic centers. This action is still more or less conjectural.

SPECIAL USES OF ARSENIC.

Psoriasis.—This is the disease in which arsenic has its most useful therapeutic scope, and in which it is the remedy *par excellence*. Some cases, however, do not respond at all to its action, and it cannot, therefore, be considered as a specific.

The probabilities of success in the treatment of psoriasis with arsenic, are greater when the eruption is of general distribution, and but slightly inflammatory, and when the patient has not been subjected to any treatment previously. It is not liable to succeed in cases in which there are but a few circumscribed patches. It is counterindicated during the developmental stage of psoriasis, or where the patches are markedly hyperemic. In such cases an aggravation of the eruption would likely ensue.

Concerning the method of administration, almost any form of arsenic may be employed. The Asiatic pill enjoys immense repute on the Continent. Each pill contains

Arsenious acid	$\frac{1}{2}$ grain.
Powdered black pepper	1 grain.
Acacia	} sufficient quantities.
Powdered althea root	
Water	

The initial dosage is one pill thrice daily. In England and in this country, Fowler's

solution, or sodium arsenate is given the preference. It is well to begin with small doses and gradually increase, being always governed by the tolerance of the patient, and the reaction of the disease to the remedy. Itching of the eyelids, conjunctival injection, puffiness about the eyes, colicky pains or diarrhea indicate an immediate reduction of the dose, or complete cessation of the drug. Kaposi asserts that if 400 to 600 Asiatic pills do not appreciably affect the eruption, arsenic is to be discontinued and another remedy substituted.

When a rapid result is desired, arsenic may be employed hypodermatically, either Fowler's solution or the solution of sodium arsenate being used. It is well to begin with one or two drops of Fowler's solution, diluted ten or fifteen times. The injection is given every other day, or every day. The cases should be carefully watched for toxic symptoms. By this method improvement in psoriasis may often be noted in a week.

The long-continued use of arsenic is, in rare cases, followed by a brownish pigmentation of the skin of the body. This discoloration is permanent. Hyperkeratosis of the skin of the palms and soles is also an occasional result of chronic arsenicism. This keratosis may in some cases lead to the development of cancer.

Lichen Planus.—In this disease arsenic is extremely efficacious. Its use is to be governed by much the same principles as in psoriasis. In the chronic form it is almost a specific. In the acute variety harm may result from its use.

Pemphigus.—Arsenic occupies the first rank in the treatment of this affection. It is said to be more efficacious in the pemphigus of children. The dose should be moderate. Pemphigus being a disease of probable nervous origin, it would seem that arsenic influences this malady by its action upon the trophic centers.

Dermatitis Herpetiformis—*Duhring's Disease.*—This is a disease somewhat allied to pemphigus but having a distinct clinical entity. It is very often favorably modified by the use of arsenic in ascending doses.

Eczema.—In the vast majority of cases of eczema, arsenic is of no avail. Its use in this disease is extremely limited. It should never be employed in a case of moist eczema or when there is any considerable degree of inflammation. It is sometimes of value in chronic papular or squamous eczema. The more nearly a case of eczema approaches in type to psoriasis (chronic, dry, scaly patches), the greater is the likelihood of arsenic being of value. The routine use of arsenic in eczema is to be strongly condemned.

Acne.—Arsenic has been employed more extensively in this disease than in any other, and yet it is of less value in this affection than in almost any other dermatosis. *Acne of itself is no indication for the use of arsenic.* Arsenic does good in acne only when the general condition of the patient indicates the use of this remedy. It may, however, do considerable harm by irritating the gastrointestinal tract, and so producing an aggravation of the skin lesions.

Vitiligo and Alopecia Areata.—In these affections one hopes for, rather than anticipates, success from the use of arsenic.

Correspondence

LIQUID SOAP.

PITTSFIELD, ILL., Jan. 4, 1897.

Editor Philadelphia Polyclinic.

DEAR SIR:—I notice in your last issue a note regarding the use of soft soap as a lubricant. For the past three years I have been using a liquid soap (Lee's, Chicago and New York), and find it much preferable to any kind of oily substance, especially when it comes to cleaning hands and instruments. It is about the consistency of glycerin and needs no preparation.

Respectfully,

H. S. DUFFIELD, M.D.

COLDS.

BY W. OAKLEY HERMAN, M.D., Philadelphia.

ONE of the most frequent affections that the general practitioner is called upon to treat is the ordinary cold of the early fall and winter. This affection is so universal in these latitudes and is so often, in its various forms and degrees, dangerous to life by reason of its complications and sequelæ that it should be given a more important place in textbooks.

The phenomenon of "*taking cold*" may be explained by the twofold result of a sudden change of temperature upon the system. As stated, the constriction of the superficial bloodvessels, which follows the change of temperature, results *first* in an increased supply of blood to the internal organs, leading to congestion and subsequent inflammation of any weak or already overburdened part. The *second* effect is the almost total arrest of excretion of the skin, especially in the more exposed parts of the body. Consequent upon this is a retention of effete material, causing a mild form of toxemia, or more exactly speaking a form of auto-toxemia, the symptoms of which are the slight chill, the following rise of temperature, and the general malaise which accompany a cold.

For the purpose of description, colds may be divided into two classes, and under the first head may be grouped those which affect the mucous membrane of the throat and nose. The second class includes those which affect the bronchial mucous membrane either primarily or by an extension of the first class. Indeed the last condition is true in the majority of instances, and most of the cases are seen passing through the degrees of both classes.

The pathology of the first class is, in brief, a congestion of the arterio-venous network of the nasal and laryngeal mucous membrane, causing obstruction. This is followed by exudation and exfoliation of the mucous cells

and endothelium, with consequent relief to the overcharged bloodvessels. An extension of this process down the respiratory tract will describe the pathology of the second class.

The symptoms of the cold in the head are well known: obstruction of nasal respiration, frequent and prolonged attacks of sneezing, pain between the eyes, throbbing of the nose, with a general sense of wretchedness and difficulty in breathing.

In a few hours, sometimes longer, these symptoms are followed by the exudative stage, which is ushered in by an acrid watery discharge, excoriating the nose and upper lip and soon becoming purulent or mucopurulent, with consequent relief to the distressing symptoms.

The treatment of "cold" should be, if possible, abortive in purpose. The familiar methods, such as hot foot-baths, quinin and whisky, warm drinks, catharsis and diaphoresis, are all useful. I have frequently found the tincture of gelsemium in 10-drop doses, repeated every hour, to be of great benefit at this stage. When the disease resists abortive measures and establishes itself, local measures must be depended upon entirely. Sprays of liquid petrolatum with menthol, Dobell's solution and solutions of phenazone, dusting powders of calomel and zinc stearate, local applications of acetanilid ointment, are all available by the general practitioner and will be found to be a great comfort to the patient. The free discharge, which makes its appearance after twenty-four hours, should not be checked too suddenly, as nature is here seeking relief for surcharged cells and over-filled capillaries. The administration of atropin and quinin at this stage is *not* advisable.

In colds of the second class the patient should be persuaded to take to his bed, the

duration of the cold will be lessened as well as the danger of the dreaded complication—pneumonia. Camphor at this stage is a most excellent remedy. I usually advise the spreading of large pieces of muslin cloth with lard or petrolatum; these are then to be saturated with an alcoholic solution of camphor, warmed and placed on the chest, both anteriorly and posteriorly, renewing the camphor every two hours. Camphor applied in this way acts as a counterirritant, as a sedative, and relieves at once the distressing sensation of constriction about the chest and the substernal tenderness. One should not begin the expectorants at this time, but administer small doses of strychnin with acetanilid or one of the salicylates.

When the cough becomes troublesome a soothing expectorant may be given, *i. e.*, sirup of tar, or an emulsion of linseed oil. The preparations of tolu and the spirit of chloroform are valuable. Codeia is often indicated. If the patient be a child, of course a cotton jacket should be immediately applied.

Neglect of these "colds" has led to most serious results, pneumonia being the most frequent complication. The coryza if not checked will sometimes become chronic, in the form of nasal catarrh.

If colds were considered more seriously and given better attention, the mortality from pulmonary phthisis would be greatly decreased.

Society Proceedings

PHILADELPHIA COUNTY MEDICAL SOCIETY.

DECEMBER 9, 1896.

DR. THOMAS J. MAYS read a paper upon
THE LOCAL APPLICATION OF COLD IN ACUTE PNEUMONIA.

[See THE PHILADELPHIA POLYCLINIC, 1897, No. 2, p. 15.]

DISCUSSION.

DR. JAMES TYSON said that his own experience in the treatment of pneumonia with cold has been rather limited, but so far as it has gone it has been satisfactory; so satisfactory indeed, that he has concluded, for the present at least, to treat all cases of pneumonia associated with high temperature that may come under his care, in this manner. The attempt to arrive at a rational explanation of the operation of cold in these cases seems to be attended with difficulty so great as to make it scarcely worth while to spend much time upon it in a brief discussion. It is well known that the fever is a symptom secondary to some potent cause, such as a vegetable organism or a toxin generated by it, while the fever is an index in some way of the seriousness of the operation of this cause. It is also likely that the treatment by cold is

useful in pneumonia exactly as it is in typhoid fever, while the high temperature itself being less prolonged, is *per se* less dangerous. The most desirable stage to reach in the practice of this matter is to get over the fear of any possible harm to the patient from the cold, for such fear is entirely unfounded. It is not at all a new doctrine that it is impossible to do harm by cold to a patient who is in a state of fever, as long as the fever lasts. It matters not much how this cold is applied, —by cold baths or by opening windows, by allowing the cold winter air to blow upon the patient. There is a certain advantage in treating pneumonia by the direct application of cold to the chest. One other part of great importance in this treatment is to discontinue the cold as soon as the temperature approaches the normal. It is also well not to use the cold in those cases, especially met with in old persons and in alcoholics, in which there is no elevation of temperature.

DR. J. M. ANDERS said that in the discussion that followed the reading of Dr. Mays's former paper on the same subject, he

stated that he had used ice locally in a couple of instances of pneumonia with encouraging results. To that experience he has added half a dozen cases, in all of which the effect of the cold was also very good. In no case did the cold applied locally abort the disease, but the general course of the cases seemed to be somewhat milder than under other methods of treatment. The temperature ran a lower course, and in three of the cases it seemed that the area of consolidation remained more distinctly circumscribed than those otherwise treated, although this may have been a coincidence. Dr. Anders has not, however, used the cold locally as a routine measure; nor did he agree that cold is applicable to all cases of acute pneumonia. The cases so treated were selected. The patients were not infants, nor very old persons; they were not individuals who had been previously much debilitated, or who possessed markedly sensitive organizations. If the advice laid down by Dr. Mays were followed rigorously, accidents would be common. Occasionally instances will be encountered in which the cold will do more harm than good. Dr. Anders referred to a case of lobar pneumonia seen in the practice of a colleague, in which neither the poultice of ice nor cold compresses could be tolerated. The patient was a lady about sixty-two years of age, and seemed to have a very highly sensitive nervous system. In all cases of pneumonia, particularly in the first stage or that of engorgement, there is apparently a clear indication for the use of cold locally, as it is known that this agency causes contraction of the dilated capillaries and thus relieves or scatters congestion even. Now, whilst admitting these facts and whilst believing that in the vast majority of cases cold should be used, still it should not be employed as a routine measure.

DR. H. A. HARE agreed that cold should be employed in certain selected cases of pneumonia; there is not a single measure that can be employed as a routine measure in every case, and the difference is very marked between the application of cold in a disease like typhoid fever, and the application of cold in a comparatively short lived disease, such as croupous pneumonia. After the stage of congestion has passed and the

second stage has been entered upon, indications must be met and combated as they arise. The damage is then done, and we must aid in clearing up the wreck. A temperature of 103° or 104° , which only lasts for a day or two, does not exert any particular deleterious influence over the patient. If it goes very much higher than this and comes to be a hyperpyrexia, then the question of heat-stroke must be considered. Below this, it is simply a manifestation of the disease, and the fever does not call for medication by drugs or treatment by external remedies. It is not likely that cold, locally applied to the chest, yields all the good results that have been claimed over and above that of cold in the reduction of fever. On the whole, when the stage of consolidation is very well developed, the continuous application of cold would not necessarily result in resolution and absorption, and it is necessary to treat with care cases of pneumonia in which, either because of inherent feebleness or delicacy of the system, cold is contraindicated. The continued application of cold to the patient's chest, up to time of crisis, may do exactly what the physician so anxiously tries to avoid, *i. e.*, produce a sudden fall of temperature from 104° to below normal, with the patient almost or entirely collapsed. It would be important to discover the limitation of the usefulness of cold to cases of pneumonia possessing certain peculiarities, or to limit the application of cold to some particular stage of the disease. It can be imagined, for instance, that when pericardial complications attend pneumonia, an ice-bag might do good, just as it does good in some cases of ordinary uncomplicated pericarditis.

DR. S. SOLIS COHEN said that if statistics might be relied upon to prove anything as to the treatment of any disease by a special method, the statistics presented would at first seem to prove Dr. Mays's contention, but cases of both croupous and catarrhal pneumonia differ so much in origin and in course, as well as in the complications with which they are attended, in the age and constitution of the patient, in the time and circumstances under which they are manifested, that it would be as impossible for any one plan of treatment to answer in every case as for one coat, no matter how good its

texture or how beautiful its fashion, to fit every person in a large gathering. On the other hand, the statistics of Fenwick from the records of the London Hospital, which include one thousand cases of acute lobar pneumonia carefully studied, and in which all the concomitants, the ages and comparative vigor of the patients, the general and special symptoms of the cases, the complications, the diseases, if any, upon which the attack of pneumonia has supervened, the time of year and other modifying circumstances, have been considered, show one thing clearly, and that is the usefulness of fever and fever heat in pneumonia as nature's method of bringing about recovery. It appears from these statistics that thirty-five per cent. of all deaths coincided in time with the sudden defervescence, the only period more fatal than this being that of the height of the fever. Those cases attended with an average temperature of 103° F. presented the minimum of mortality, the states of apyrexia and of hyperpyrexia corresponding with the maximum of danger to life.

In other words, it is the extremes that are to be dreaded, whether of high temperature or of low temperature. Moderate fever heat is beneficial. These views are not novel or on trial. They are the old Hippocratic doctrine placed in modern language. This doctrine, namely, that certain elements of the febrile complexus, and especially the febrile heat, being the reaction of the normal organism against the invading hosts of disease, are to be controlled but not antagonized, is thoroughly established. Notwithstanding advances in laboratory methods, a great deal is still to be learned from the old clinical observers who studied their cases carefully and who took note of all the environmenting circumstances, while with all the instruments of precision there exists the liability to overlook important facts. Careful reading of the teachers of medicine throughout all time will show that this doctrine of the usefulness of fever as nature's reaction against causes and processes of disease has been held by those whom we may properly regard as leaders of medical thought, and none of the recent exact investigations has tended in any degree to overturn that doctrine. It may not be easy to understand

it or satisfactorily to explain its mechanism, but it is an absolute clinical fact.

It would be preferable to see a patient with lobar pneumonia run along with a temperature a little higher than one a little lower than the average. One could be more hopeful of a favorable result. It would indicate not so much the severity of the disease as the energy of the salutary reaction. On the other hand, hyperpyrexia is unquestionably an indication of danger; it shows not an energetic reaction, but an unbalancing of the regulatory mechanism, perhaps as a result of profound intoxication, perhaps of constitutional weakness—but these are speculations upon mysteries yet unsolved. Dr. Cohen has seen a number of cases of pneumonia in which cold applications have apparently done good; a few in his own practice, more in the practice of others. He has seen some of Dr. Mays's own patients at the Polyclinic Hospital, who seemed to do remarkably well under the influence of local cold, and to be pretty comfortable with it. If any general rule in these cases could be laid down, it would be to use cold applications whenever they added to the comfort of the patient. They would then be likely to prove useful; but whenever they added to his discomfort they would be likely to prove harmful. Hot local applications in pneumonia have been used from time immemorial, and are to be preferred, if they seem to give relief. The same rule applies and the effect is probably very similar.

DR. ERNEST LAPLACE maintained that the pneumonia produces fever, or that fever in pneumonia is a direct result of the amount of toxin remaining in the blood, because of the development of the pneumococcus in the blood, and that there is fever in a direct ratio to the toxin present. This toxin is a chemic substance, and it passes through the blood to the thermogenic centers at the base of the brain. These centers are irritated, and the result is fever. That is no mystery, but a scientific fact which can be reproduced, not with the toxemia of pneumonia very well, because that is beyond any crude analysis of the chemist to-day; but pneumonia with fever can be produced by any chemist at will, say with compound tincture of iodine, as a direct result of the irritation of the base of the brain. Most violent diseases, whether surgical or med-

ical, accompanied by high fever, have a tendency to recovery, and those which are accompanied by less fever, have less tendency to get well. In other words, when there are great disturbances of the body, the resulting variations of temperature will so alter the soil of the system as to render that soil itself deadly to the invading germs, and they will die spontaneously and the patient get well. Tuberculosis of spinal origin, or of the hip-joint, is at no time attended with the production of sufficient poison to alter the soil and make that soil itself death-dealing to the germ, as in pneumonia. As a result the body is slowly worn away and the patient dies. On the other hand, the tetanus bacillus develops quietly, but its toxin passes through and irritates the brain; it acts like strychnin, which, unlike compound tincture of iodine, will not induce fever, but simply causes violent spasm, and, as a result, the soil is at no time death-producing to the germ. In other words, the progress of pathology, medical or surgical, is directly in the line of the reaction of the tissues of the brain, or of other organs to the products of micro-organisms and the same resistance of the tissues of the body to the various toxins exists as between the tissues of the body and various drugs used.

DR. J. C. WILSON expressed regret that in the collection of cases reported and their analysis, the distinction between croupous pneumonia and broncho-pneumonia—two entirely distinct diseases—has not been made out. He emphasized the statement that the height of the temperature is no index of the severity of the process. Cases of well-developed croupous pneumonia, beginning abruptly with high temperature, run, on the whole, a course usually more favorable than those in which the temperature does not rise above 102.5° F.

Dr. Wilson has been in the habit for some years of using applications of ice to the chest in the manner described by Dr. Mays, in the treatment of croupous pneumonia, both in private and hospital practice. There is no reason to suppose that the application of cold to the chest has any direct action upon the bloodvessels of the interior of the lung. It is certain, however, that it relieves pain to some extent, as well as lowers the respiration, and, to a trifling extent, reduces the temperature. There is no ground for believing that it at all

limits the extent of the exudate, nor has a most careful study of the subject shown that it hastens the crisis.

DR. J. P. CROZER GRIFFITH said, that the treatment of pneumonia with ice is no new one. He watched it years ago in Vienna, and was impressed by the fact that it relieved pain, but did not influence the progress of disease in the slightest degree.

DR. M. V. BALL said, that in croupous pneumonia of children between the ages of four and twelve, he has found the cold treatment very useful. How it acts is uncertain, scarcely by limiting the course of the disease, although it does seem to relieve pain and children sleep well under it, while there is no difficulty in applying it.

DR. THOMAS J. MAYS said, in regard to the differentiation between catarrhal and croupous pneumonia as they stand related to the treatment of cold, that, in his earlier experience with the ice-bag, he confined it exclusively to cases which were affected with the croupous variety of this disease. He soon found that others, among the first of whom was Dr. Franklin, of Hightstown, New Jersey, who used it with equal success in the acute catarrhal variety following measles, etc., and since then Dr. Mays has used it in all cases of acute pneumonia, unless there existed some possible contraindication. It has been well said that fever is no index as to the severity of the pneumonia process, although practically this point does not receive general recognition. Thus, there may be very high fever with very little lung-involvement, and, on the contrary, a large area of pulmonary disturbance with little or no fever. It must be remembered, however, that the degree of temperature present may not always represent the degree of thermotaxic disturbance. Concerning the influence of cold on the pneumonic process, it is very difficult to say anything definitely so far as the *modus operandi* goes, yet every observer will bear testimony that it possesses a direct influence on the local process. This was the experience of Dr. Lees, of London, who wrote on this subject before Dr. Mays did, and from whose work the latter received the inspiration which led him to test this treatment; and it has been seen over and over again by a number of other practitioners. It not only limits the pneumonic

process, but in many cases when it is applied early enough it cuts short the disease.

In regard to the danger of fever, Dr. La-place hit the nail on the head when he said that pneumonia fever develops the toxins referred to in the paper, and which have the power of producing convulsions, stupor and other morbid nervous manifestations in the lower animals. Is it wise, therefore, to sit passively by and allow these agents to disintegrate the nervous system as far as they are capable of doing so; or is it not the physician's duty to make every possible effort to reduce the fever, and thus check and annihilate this process of devastation? As has been said, it is well known that a temperature of 104° is not dangerous, at least not dangerous to life in most cases, yet to say this seems to be somewhat apologetic; for most physicians welcome a fall from 104° , rather than see the temperature remain at this point, and that if intelligent efforts fail in bringing about a reduction, the fault does not lie so much in the physician as it does in the disease. While fever may be a good thing for the disease, it is a very poor and dangerous experiment for the patient.

Nor does the coat-fitting argument apply to this case; for no one advocates the indiscriminate use of cold in pneumonia. There are certain characteristic morbid conditions which are known and recognized as pneumonia, and while it is true that cold does not fit every case in which such a collection of symptoms obtains, yet those experienced with cold know that it entirely fits the great majority of such cases; and those in which it is not admissible, must be regarded as exceptions to the general rule. The same objections may be leveled against the external use of cold in typhoid fever; yet, as a rule, no one at present thinks of treating this disease without the use of cold-water baths.

The other objection that has been raised that the local is not superior to the general application of cold in pneumonia, certainly gainsays the experience of Dr. Mays, and that of every one else who has made a comparative study of this question. That general bathing is useless in this disease is not asserted, but when it is desired to get the best effects of cold in pneumonia, its influence must be concentrated on the local condition in the lung.

Current Literature

Respiratory Interchange During Typhoid Fever.—As the result of a study of the respiratory chemistry in health and during typhoid fever, ROBIN and BINET (*Archives générales de Médecine*, June and October, 1896) have found that during the attack of fever the production of carbon dioxid falls below the normal, while the total consumption of oxygen is only slightly diminished, approximating the normal. The absorption of oxygen by the tissues is increased, while the respiratory quotient is diminished. These modifications are increased in proportion to the severity of the disease. During convalescence, the production of carbon dioxid is increased, while the total absorption of oxygen remains normal or is slightly increased, and the absorption of oxygen by the tissues is diminished. The respiratory interchange is increased, but disordered. The respiratory interchange increases as the temperature declines, and *vice versa*. These data form part of a well-defined type having the significance of a syndrome that may be utilized for diagnostic purposes. The gravity of the disease, or a transient aggravation of the condition of the patient, is indicated by a diminution in the respiratory interchange. From this fact, and from the further fact that in convalescence or with transitory amelioration the interchange increases, certain useful prognostic indications may be derived. There is an accord between the diminution in nitrogenous oxidation and the lessening of respiratory interchange. The coefficient of nitrogenous elimination, almost normal at the onset, declines sensibly with the first signs of defervescence. The diminution in the respiratory interchange is attended with a diminution in the oxidation of the ternary principles of the organism, as indicated, among other things, by an increase in the urine of ternary principles incompletely oxidized. The propositions enumerated are capable of direct therapeutic application. They indicate the employment during an attack of typhoid fever of remedies capable of increasing oxidation, and the avoidance of those that tend to depress that process.

A. A. E.

WRITE FOR the new announcement of The Philadelphia Polyclinic.

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PHILADELPHIA, JANUARY 16, 1897

BEER-BOTTLES AS CONTAINERS FOR SAMPLES FOR ANALYSIS.

A RATHER pathetic appeal has been lately sent to us in the form of a circular issued by the Philadelphia Bottlers' Protective Association, that efforts be made to prevent the use of beer-bottles for containing samples of urine intended for analysis. The circular is accompanied by a transcript of a letter recently received by the Association from a physician (or physicians, for no signature is given and the writer uses both "we" and "I") engaged in analytic work. The letter is somewhat more startling in its treatment of English grammar than it is in its revelations as to the extent of the practice which the writer seeks to amend. We are informed, for instance, "that fifty per cent. of the bottles brought to us is in beer bottles, which is certainly repugnant to any person of culture or education." Such English is undoubtedly repugnant to any person of culture or education. The circular contains a copy of the Pennsylvania law against traffic in registered bottles, but it does not appear to us that this law can be invoked with effect, since it relates to the use of bottles for holding articles intended for sale.

For ourselves, we may say that while we would like to see the practice of using beer bottles for miscellaneous purposes abolished, it is for a different reason than that alleged in the letter, which refers only to the likelihood of a second use of the bottle for containing beer. As a matter of fact, it is almost always possible for the one who receives the sample to destroy the bottle as soon as the analysis is made. Not one person in ten asks for the return of the bottle in such cases. Moreover, the objection to the second use of a bottle because it has contained a sample of urine is merely sentimental. Breweries give great attention to cleanliness, and we have little doubt that all returned bottles are thoroughly freed from any material previously contained in them.

The scientific objection to the placing of samples of urine, milk or water, intended for analysis, in such bottles is that the analytic results may be seriously affected. The beer does more harm to the sample than the sample does to the bottle. The rinsing of the bottle is often imperfectly done in the house, and some of the original contents may remain in it and contaminate the sample sent for analysis.

The letter seems to exaggerate the extent of the practice. The remark, "so for the sake of all of us, we would request that this universal practice should be fought until it is eradicated," is inaccurate as to fact and form. The practice is not universal. It is very uncommon among the better classes, and must be principally noted in dispensary work.

We think, however, that it is well worth while for physicians to urge upon patients the importance of using clean bottles. Those of colorless glass are far preferable, since they are more likely to be well cleaned.

As an interesting object-lesson in the danger from unclean bottles, we may relate a case that occurred some years ago. A pecu-

liar gelatinous deposit was noticed in a sample of urine. The deposit showed, on close examination, several regular hexagonal yellow crystals and a few hairs. Microscopic examination showed that the latter were not human hairs. A few experiments with the deposit showed that, instead of being some new undescribed urinary sediment, it was simply the residue of some iodoform collodion, which had been in the bottle. The yellow crystals were iodoform, and the hairs were from the camel's hair brush which had been used for applying the solution. It was a case of dirty bottle, nothing more.

H. L.

The Laboratory.

Under the Editorial Charge of Henry Leffmann.

Test for Acetone.—The text-books on urinary analysis give several tests for acetone, some of which require chemicals, *e.g.*, sodium nitroprussid, which are not readily obtained. The test with sodium hydroxid and iodine solution is not always satisfactory. In the December number of the *Journal of the American Chemical Society*, Dr. Squibb describes some observations with a newly-published volumetric method for determination of acetone, and, as the process seemed to offer advantages as a clinical test, I made a few experiments with it. When a solution of acetone is treated with potassium iodid, sodium hydroxid and chlorated soda in succession, a precipitate of iodoform is promptly produced. Squibb has studied the reaction only in its practical aspect as a technic analytic method. I find that a quantity of pure acetone representing .004 per cent. (1 c.c. to 25 litres) will give sufficient iodoform to show the characteristic plates under the microscope, even when only about ten c.c. of the above dilute liquid are used. Chloroform neither interferes with the reaction nor imitates it. Since sodium hydroxid produces a precipitate of earthy phosphates with all samples of urine, the liquid

will require filtration. The manipulation is as follows: To a convenient quantity of the urine (say 10 c.c.) add about one c.c. of a strong solution of potassium iodid, and about an equal quantity of strong sodium hydroxid solution. After standing a few minutes the liquid is filtered, and to the filtrate is added a few drops of chlorated soda (Labarraque's solution). The tube should not be shaken. In a few seconds the presence of acetone will be shown by the formation of a very pale yellow precipitate of iodoform, which may be collected by the centrifuge, and examined under the microscope. If the tube be shaken, the urea will react with and decompose the chlorated soda. Care must be taken not to mistake the effervescence due to this action, for the precipitation.

Alcohol does not furnish iodoform so readily as acetone with this test, but I have found a slight reaction. In examining diabetic urine, therefore, it is necessary to use the fresh samples, since fermentation soon sets in and notable amounts of alcohol will be formed. Chloroform completely controls the alcoholic fermentation, and, as noted above, does not interfere with the test.

The chlorated soda solution must be of good quality; made with *excess* of sodium carbonate, so that there may be no calcium salts present. One advantage of this test is, that all the substances used are readily obtainable in good condition at any drug store. The test can obviously be made exceedingly delicate by concentrating the acetone by the distillation of a rather large volume of the urine.



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THE PHILADELPHIA POLYCLINIC

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EUCAIN IN LARYNGOLOGY AND RHINOLOGY.

BY JOSEPH S. GIBB, M.D.

Professor of Diseases of the Nose and Throat, Philadelphia Polyclinic; Surgeon-in-charge of the Ear, Nose and Throat Department, Episcopal Hospital.

LOCAL anesthesia by means of cocain has been of inestimable value in the domain of rhinology and laryngology, but it has not been without disadvantages. We are all familiar with the nausea and depression from its use, and not a few have witnessed the more serious toxic effects; so that when a new drug was offered to the profession, with claims in its favor that it possessed all the anesthetic power of cocain with none of its toxic effects, it seemed as though we had advanced a step in the effort to obtain perfect local anesthesia.

Though somewhat skeptical of these claims I began the use of eucain at the clinic of the Episcopal Hospital in July, 1896, and later at the Polyclinic Hospital.

It was employed in 2 per cent. solution in all cases of ordinary examination of the nares, pharynx or larynx, in which cocain would have been deemed necessary or advisable. For instance, cases in which the irritability of the nasal chambers were such as to render a thorough examination difficult or impossible; cases in which the contact of a laryngoscope produced such irritability and muscular action as to render the attempt futile; cases in which the application of a local anesthetic preceded the employment of irritating solutions or insufflations in the laryngeal cavity, and in many other conditions in which we find local anesthesia of service.

In this capacity it has been used in a very large number of cases. A 2 per cent. solution has been found entirely serviceable, giving as marked anesthesia as a 4 per cent. cocain solution. The effect of solutions in this strength became manifest in 2 to 3 minutes and lasted fully 15 to 20 minutes. As with cocain, there is a very great difference in individuals as to the length of time in producing and the duration of anesthesia. In a very few it was difficult to detect any anesthetic effect.

It has been stated that eucain, unlike cocain, does not produce ischemia of the tissues but rather a hyperemic effect. This is certainly not the case in the nasal chambers, for the drug in my hands seemed to show precisely the same power of reducing engorged turbinates as did cocain.

In order to compare the action of the two drugs upon engorged turbinates, a number of cases, in which both middle and lower turbinates of both sides were hypertrophied, were selected. Cocain was used in one nasal chamber, and eucain in the other. In these experiments every precaution to prevent the drug from passing from one to the other nasal chamber was taken. The method was as follows:

A small piece of cotton was rolled on the end of an Allen probe and soaked in the solution to be used, avoiding an excess,

and then rubbed carefully over the parts to be observed. From eight to ten minutes were allowed for the drug to have the proper effect.

In 19 cases, in which these experiments were employed, no apparent difference in the contractile effects of the two drugs could be detected in 15; in 3 cases, cocaine was decidedly more effective; and in 1 the difference seemed to be in favor of the eucain. Though not desiring to attach undue importance to these few observations, and fully conscious of their incompleteness, yet there is much significance in the fact that, in the larger number of cases, no noticeable difference in the power of reducing engorged turbinates was observed.

We are surely safe in asserting that, in the nasal chambers, eucain possesses a decided effect in contracting the bloodvessels.

One feature in the use of eucain in the pharynx and larynx I have not seen alluded to in literature is the sensation to the patient. The distressing effect of cocaine in causing a fullness as though of a foreign body is well known. In many instances, especially in nervous, hysterical women, painful and sometimes alarming dyspnea ensues.

Eucain in the pharynx gives rise to a bitter, unpleasant taste, but in no case has the distressing effect of cocaine been observed. This is an interesting and important feature of the drug, and if borne out by subsequent investigation will certainly go far towards popularizing its use in pharyngeal troubles.

Since its introduction in the clinic, eucain has been used in a large number of the usual operations incident to a large clinical service. In these operations a 4 per cent. solution was invariably employed, and from 10 to 15 minutes allowed to elapse after the application before beginning the operation. The method of applying the drug was the same as has been already mentioned, namely by cotton soaked in the solution and rubbed into

the part to be operated on, and in addition in nasal operations a pledget of cotton soaked in the solution was allowed to remain at the site of operation until we were ready to proceed. It is probable that a clearer idea of the results may be obtained by the citation of a few typical cases.

CASE I.—Enormous hypertrophied tonsils had been partially removed a few weeks previously. These tonsils were so large that the largest size tonsillotome failed to perfectly encircle them, so that quite a mass remained at the superior portion, close to the pillars of the fauces. Eucain was used and the right tonsil deeply cauterized in two spots by means of the galvano cautery knife. The anesthesia was perfect.

CASE II was the removal of an enormous hypertrophy of the middle turbinate bone (which subsequently was found to be a true bony cyst) by the cold wire snare. A pledget of cotton soaked in eucain solution was allowed to remain at the site of operation for 15 minutes. The anesthesia was perfect. There was very slight bleeding at or subsequent to the operation. This case possesses some interest from the fact that some months previously a similar bony growth was removed from the opposite nasal chamber under cocaine. The patient states that the pain was very slight in either operation and that the bleeding was much more severe after the cocaine.

CASE III.—Large polypi were removed from both nasal chambers by the cold wire snare in the same manner as in Case II. Anesthesia was perfect and the bleeding slight. Considerable time was consumed in the operation owing to the large number of polypi present. As in Case II, a similar operation had been done one year before under cocaine with similar results.

CASE IV was one of pronounced deflection of the nasal septum to the left, entirely occluding this chamber. Eucain was used in the usual manner. An incision was made through the septum close to the floor of the nose and an oval-shaped piece excised from the septum. The little finger was introduced into the nasal chamber and the septum forcibly pushed over to the healthy side. A pin was then made to transfix the septum in order to retain it in its corrected position.

All the steps of this operation were painless save the forcible pushing of the septum from one to the other side of the nasal chamber.

In CASE V large hypertrophied tonsils were excised. The anesthesia was not complete. The effect seemed the same as in cases in which cocain is employed.

CASE VI was a dense anterior synechia due to adhesive inflammation between a large spur and the inferior turbinate. The spur was sawed off close to the septum. This patient was a nervous young lady who made considerable outcry, but who subsequently volunteered the statement that there was little or no pain, but the motion of the saw through the dense osseous tissue jarred her head and made her nervous and apprehensive. This case gave us an opportunity to contrast the effects of eucain and cocain upon the pharynx in an interesting and instructive manner.

It was necessary to pause in the operation for a considerable time in consequence of severe bleeding, necessitating tamponing, hence when the operation was resumed it was deemed advisable to use more of the anesthetic. The eucain solution had been removed so that to expedite matters I used the solution that was at hand, namely, a 10 per cent. cocain solution. In a few seconds she complained of the usual sense of fulness in the pharynx and difficulty in breathing. Eucain had been freely used previously—much more so than this single application of cocain, but had given rise to no such unpleasant effect.

CASE VII gave us a good opportunity to contrast the drugs as to their toxic properties. In September, 1896, a badly deflected septum was corrected under cocain in a manner similar to that detailed in Case IV, with the exception that in addition it was found necessary to break up the bony septum by the Adams forceps.

The patient bore the cocain badly, so that it was necessary to desist before completing the operation and employ means for resuscitation. He presented the symptoms we usually ascribe to cocain poisoning, namely, a blanched countenance, profuse sweating, pulselessness at the wrist, with great weakness and depression. In speaking of the case to the

class it was remarked that in a severe nasal operation involving fracture of the bony septum there might be good ground for questioning the cause of the symptoms of depression. We are wont to ascribe all these unpleasant effects to cocain. Might not shock play a very important role?

On the 10th of November it was found necessary to reduce a large hypertrophied posterior lower turbinate and the galvanocautery knife was chosen for the purpose. Eucain was used both in the nares and nasopharynx. The patient remained absolutely quiet during the post-nasal application and pronounced it painless.

The remarks made at the first operation as to the part played by shock in his former depression were alluded to. The patient, who was a quiet, intelligent fellow, spoke up and said: "Doctor, there can be no doubt in my case that the symptoms were due to the drug used, for I have felt very dizzy and had nausea each of the five times you have put that 'stuff' in my nose (referring to cocain), but I have no such feeling to-day."

Whilst we should be loath to accept statements of patients as conclusive evidence, in this instance they seem valuable, especially linked, as they are, with very marked difference in objective symptoms.

CASE VIII was a very large tubercular ulcer occupying the right ary-epiglottic fold and extending down to and involving the arytenoid of the same side. A 4 per cent. eucain solution was rubbed into the ulcer twice and fifteen minutes allowed to elapse before employing lactic acid solution (80 grains to the ounce). For several weeks previously a 10 per cent. cocain solution had been used in the same manner. The drugs seemed to have equal anesthetic power.

These cases have been taken at random from a large number in which eucain has been employed for its local anesthetic effect. An effort has been made to illustrate by the cases certain peculiarities in the action of the drug and to contrast it with its sister-anesthetic—cocain.

That it has a powerful anesthetic influence upon mucous surfaces is indisputable. Not the slightest evidence has been observed in a single case of a poisonous action of the drug, and therefore we are justified in asserting that it is safer in this respect than cocain. Positive statements, however, should not be made until we have had longer experience in its use.

To sum up the result of our experience with eucain:

(1) Eucain is equally efficient with cocain as an anesthetic in ordinary examinations.

(2) Eucain possesses equal anesthetic power with cocain and hence is as useful in operations in the nose, pharynx, or larynx.

(3) Eucain is nearly, if not quite, as effective as cocain in reducing engorged turbinates.

(4) Eucain is superior to cocain in that it is much less likely to produce toxic symptoms.

(5) Eucain is superior to cocain in that it produces far less unpleasant subjective symptoms, and especially is this true in the pharynx.

CARDITIS INTERSTITIALIS.

BY J. HOBART EGBERT, A.M., M.D., Ph.D., Holyoke, Mass.

OWING to the lack of accurate information concerning the occurrence and progress of the disease commonly known as acute myocarditis, it is believed that the following report will not only prove of interest, but may shed a ray of light upon the obscure history of this serious malady. As the illustrious Dr. Alonzo Clark was wont to tell his students from year to year, during his memorable connection with the New York College of Physicians and Surgeons, as Professor of the Principles and Practice of Medicine, "myocarditis" is tautology, and hence we prefer to speak of our case as one of acute interstitial or parenchymatous carditis. From the fact that the exact pathological condition of the heart in this case was not demonstrated by post-mortem examination of the organ itself, there may be some who will question the diagnosis—believing the exact determination of interstitial carditis is made only by post-mortem examination of the heart itself—but the evidence at hand is convincing to at least one, to wit, the writer

On the evening of December 31st, I was called to see Mr. C., a machinist, age 56.

I found him with the other members of his family in the sitting-room, occupying an easy chair and trying to give his attention to the evening paper. His only complaint was of a pain in the region of his heart—a pain that had been felt a little that morning but which had grown constantly worse during the day. In quality the pulse was full and vigorous, and its rate 110; the temperature was 102.4° F. There was slight local tenderness in the region of the left breast, and percussion gave slightly increased dullness in this region. There was no heart murmur nor visible external physical sign. A ten-grain Dover's powder was prescribed and the patient directed to take a hot foot-bath and go to bed. In case the pain did not abate within an hour, a mustard paste was then to be applied.

About 4 o'clock the following morning, the call came to revisit the patient; I found him suffering intense pain in the region of the heart, very restless and disturbed. The rate of the heart's pulsation had not advanced but the quality was altered, the radial pulse being much less full and vigorous than it had been the previous evening. The temperature was 103.5° F. Only slight diaphoresis had been effected by the foot-bath and Dover's powder. A small quantity of high-colored urine had been voided during the night. A hypodermic injection of 1/4 grain of morphin

sulfate was now given and, as very little relief attended its administration, it was followed in half an hour by another containing the same quantity of morphin, together with $\frac{1}{10}$ grain of atropin sulfate. This gave temporary relief. A mixture of tincture of digitalis, spirit of nitrous ether, and solution of ammonium acetate was prescribed.

When the patient was again seen after breakfast, the pain in the region of the heart had returned with force. The percussion dullness over the heart was more pronounced, the heart's sounds more or less muffled, and a distinct friction sound could be heard. A hypodermic injection of morphin was administered, and this failing to give relief a small blister was put over the heart and the patient rested. I now felt certain that the case was one of acute pericarditis, but one evincing peculiarities, one in which pain was a most persistent and distressing feature, and one which progressed with unusual rapidity. There was no history of a predisposing cause. The patient had never been the victim of rheumatic fever, and few men of his age could boast of so few sick days. The only evidence of an exciting influence was one of exposure (witnessed and even participated in by the writer), a few nights previous, to a draft of air which played upon his bald head and his shoulders for about an hour during the dedication of a new building belonging to an organization of which he was a member.

Although the pain did not wholly disappear from the region of the heart, the patient rested at intervals throughout the day, but by midnight it was again most severe—as the agonized countenance of the patient and his great restlessness plainly indicated—and before morning there was delirium. The pulse rate at 6 A.M., January 2, was 120 and variable; the temperature, in the axilla, 104.2° F. Morphin was given hypodermically without other appreciable effect than to increase the delirium. Hyoscin hydrobromate (grain $\frac{1}{100}$ hypodermically) was then administered and had an immediate calming effect. During the preceding twenty-four hours about seven ounces of high-colored urine was voided; specific gravity 1020, albumin present. There having been no evacuation of bowels, 5 grains of calomel were administered. This failing to act, was followed in

six hours by 30 grains of compound jalapowder. This occasioned two small dejections. By repeating the hyoscin hydrobromate injections the patient was kept somewhat quiet throughout the day, but during the following night the delirium increased and, except when modified by large doses of sedatives, was violent and maniacal. The patient refused to take medicine, called loudly and wildly, and frequently struck at those who approached him. Either one foot or one hand was usually kept in constant motion—beating time rhythmically—and when this was overcome by pressure of the sedative, it was taken up by the jaws and sounds similar to those yielded by the parade drum were maintained by the clash of the teeth. There was frothing at the mouth, the pulse became weak and irregular and that the patient was yielding to septicemia was plainly evident. That I was now dealing with a case of purulent pericarditis was quite obvious, but it was also quite evident that the inflammation extensively involved the cardiac muscle as well.

As the septic products of inflammation and bacterial growth were more widely diffused throughout the body, vitality waned and death occurred about four o'clock the following afternoon. Permission to make a post-mortem examination was flatly refused; nevertheless, under strict aseptic precautions, a small amount of sero-purulent fluid was, soon after death, obtained from the pericardial sac and subjected to microscopic and biologic examination. From it was obtained the *micrococcus lanceolatus* in pure culture, and a rabbit inoculated yielded in twenty-four hours to fatal septicemia. But what to my mind was of most confirmative diagnostic interest, was the fact that in the exudate obtained the microscope revealed the presence of typical cells of cardiac muscle in various stages of degeneration.

ITALIAN HONORS FOR BEHRING.—The King of Italy has conferred upon Dr. Behring, by virtue of his discovery of diphtheria antitoxin, the grand cordon of the crown of Italy.

FIRE AT BELLEVUE HOSPITAL MEDICAL COLLEGE.—Through a fire on January 20th, Bellevue Hospital Medical College sustained a loss of \$15,000.

Society Proceedings

PHILADELPHIA COUNTY MEDICAL SOCIETY.

December 23, 1896.

DR. MORDECAI PRICE read a paper on

FECAL IMPACTION SIMULATING APPENDICITIS.¹

It is the accepted opinion of surgeons throughout the civilized world that when the diagnosis of appendicitis is made the treatment is purely surgical. It is also easy to say when the appendicitis exists. The hardest part for both the physician and surgeon is to say when it does not exist. I cannot accept the opinion, that all inflammatory troubles in the peritoneum are appendicitis. It has been my experience to meet with cases having symptoms so closely resembling those of inflammation of the appendix, that it was impossible to say that appendicitis did not exist until free purgation had demonstrated that causes distinct from the appendix were at the bottom of the sickness. These conditions occur in my experience at least five times more often than cases of true appendicitis. Free purgation will clear up the symptoms and remove the trouble, and when it does not accomplish this most-to-be-desired object, it makes very plain the fact that we have to deal with true inflammatory conditions of the appendix, or an ulceration of the colon itself. This confusion of the term "appendicitis" and other inflammatory conditions in the peritoneum has been the cause of the constant controversy on this subject, some accrediting cures of true appendicitis and abscess at the head of the colon to purgation and poultices. Simply because they had the symptoms of appendicitis—pain, tenderness, increased temperature, and a mass in the right iliac fossa—they concluded without hesitation that they had unquestionably a case of appendicitic abscess. Free purgation cured the case. They did not appreciate the condition present, as can be seen by the following report of a number of cases that completely represent just this condition, and in none of them could true appendicitis be positively excluded until free purgation, when the whole matter was cleared up.

Symptomatic Appendicitis.—(I use this term because for a time it is impossible to separate this condition from true appendi-

citis.) The symptoms of this condition are from the very beginning those of true appendicitis. Following a history of constipation, after a large and gluttonous meal, it may set in with a violent chill, high temperature and agonizing pain, with a large mass in the right iliac fossa. There may be a mass without elevation of temperature, or chill, but with severe colicky pains. To say that appendicitis does not exist under these circumstances is a very difficult matter. The appearance of the patient and the existence of a mass at the very outset of the disease is to me almost satisfactory proof that if appendicitis exists it is catarrhal in character and is caused by the damming back of the secretion of the appendix, by the collection at the head of the colon. The treatment of this condition is purely medical. Geo. B. Wood early recognized just such a condition and also formulated the treatment—free purgation by calomel and salts.

One of Philadelphia's most illustrious teachers, in discussing this subject of appendicitis, says that just in proportion as a mass makes its appearance in the right iliac fossa early in the condition is the prognosis favorable without surgical interference. This assertion I endorse, and I believe that all such cases are due to impaction and curable by free purgation. I have several cases to report to illustrate the position I take.

Dr. Weaver asked me to see with him a boy suffering with appendicitis. Dr. Weaver was called to the boy on Sunday afternoon and found him with a temperature of 103.5° and a pulse of 130, and in great pain, with the abdomen greatly distended. The following history was obtained: The boy, thirteen years old, and much overgrown for his age, had on the previous Saturday fallen on the railroad, suffering a slight injury in the right groin. This did not prevent his taking a long ride on horseback on Sunday morning. In the afternoon the doctor was called and found him, as stated, with a large and tender mass in the right iliac fossa, excessively tender to the touch. The boy lay with his limbs drawn up and

¹ Extract from "A Report of Cases in Abdominal Surgery."

everything seemed to indicate a dangerous condition. I saw him on Monday morning. Dr. Weaver had purged him all night. After careful investigation of the symptoms, I considered the case one of impaction caused by a slight blow in the groin and the boy's ravenous appetite on the previous Saturday. I endorsed the treatment and asked that it be continued and that I be called if the boy was no better on Tuesday at noon. I received word on Tuesday to come at once, that the boy was dying. As soon as I could go, I went. Dr. Bricker accompanied me, and when we arrived we found the boy sitting on the side of the bed with all the urgent symptoms gone, and when we asked for the cause of the great improvement, the chamber was produced and it was half full and more with partly digested vegetables and other things that boys will sometimes eat.

Why impaction instead of appendicitis? First, the dull character of the pain; then the high temperature, which is not usual with pus in the peritoneum, and the large mass in the right iliac fossa at the very beginning of the symptoms. The history of the blow in the region of the head of the colon was sufficient cause for partial paralysis of the bowel and the distention.

The following two cases are reported by Dr. John F. Roderer, with whom I saw them in consultation:

Mr. M. retired on Sunday, October 25th, very well. He awoke about 2 A.M. with pain in the abdomen, which became very severe. When I first saw him he was suffering with a severe colic and with pain in the right iliac fossa. The bowels had been moved on the previous day. On examination I found a large mass in the region of the head of the colon. There was considerable tenderness on pressure; and the temperature was but little above the normal. After free purgation all of the symptoms disappeared.

On the 5th of November I was called to see Mr. W., who had a severe attack of colic, with a great deal of distention and tenderness over the entire abdomen. The iliac region was distended and tender with considerable induration. The bowels had been moved the previous evening. In the afternoon the temperature was 104°. During the following night the bowels were freely moved, and the distention and tenderness all passed away.

Current Literature

REPORT ON NEUROLOGY.

BY A. FERREE WITMER, M.D.

A Contribution to the Pathology of Epilepsy.—Dr. Collins, of New York, is the author of this paper (*Brain*, Autumn Number, 1896.)—After localization of the convulsive movement, the offending portion of the motor-area was excised and examined in two cases. In the first case was found:

(1) Meningo-encephalitis, chronic in type, with acute exacerbation; this latter probably occurring subsequent to the operation.

(2) Marked obliterative changes occurring in the bloodvessels of the pia and cortex.

(3) Slow degenerative changes in the ganglion cells.

(4) Softened areas; probably resulting from the obliteration of some of the bloodvessels at the junction of the white with the gray matter.

(5) Replacement of the softened area by true neurologic tissue.

In the second specimen the author noted scattered points of hemorrhage, although the superficial layers of cells, including the small pyramids down to the layer of large pyramids seemed normal. The large pyramidal cells are diminished both in number and in size while their processes are attenuated. The nuclei, too, are not as distinctly outlined as normally; in many cells no nuclear structure can be made out.

Cases of Paraphasia and Word Deafness.—(*American Journal of Insanity* for October, 1896.) In this paper Dr. Worcester suggests that the examination comprise:

(1) Ability to comprehend spoken words, best tested by directions to be followed by the patient.

(2) The memory of words; best tested by requiring the patient to name objects.

(3) Ability to repeat spoken words.

(4) Ability to read.

(5) Ability to write spontaneously, or after dictation.

(6) Ability to copy written or printed matter.

Pathology of Epilepsy and other Convulsive Diseases.—(*Journal of Nervous and Mental Diseases*, Sept., 1896.) Dr. Langdon concludes in this article that:

(1) Epilepsy, chorea and probably most convulsive disorders are the dynamical expression of an inhibitory insufficiency, not indicative of an overproduction of nerve-energy, nor due to a molecular irritability *per se*.

(2) That the cause of the inhibitory insufficiency is to be sought in the end-bulbs of the collateral processes of various cortical neurons, the situation varying with the type of disease, whether inhibitory, sensory, psychic, or motor.

(3) That this defect consists most probably in a structural incompleteness, or a numerical deficiency—possibly of both—in the collaterals referred to.

These defective collaterals may favor recurrences of convulsions in two ways:

(1) By impairing connection with the neuron (inhibitory storage).

(2) By increased resistance to overflow currents, causing a temporary overcharge of motor-axis cylinders.

In the Clinics

Under the Editorial Charge of DR. W. OAKLEY HERMANCE.

Erythema simplex, according to the statements of Dr. Cantrell, rarely is of long duration, but should a case be rather persistent it is advisable to give a purgative, followed by mild, continuous doses of some saline.

* *

FOR cases of *acute* and *subacute rheumatism*, in which there is considerable involvement of the muscles and also great pain, Dr. Eshner sometimes prescribes

Phenazone	2 drams.
Sodium salicylate	3 drams.
Ammonium bromid	4 drams.
Cinnamon-water	3 fluidounces.
	Mix.

DOSE.—A teaspoonful every three or four hours.

* *

THE new local anesthetic, *eucain*, has been employed by Dr. Sweet in the eye clinic in upwards of fifty cases during the past two months. A two-per cent. solution of the hydrochlorate was used, one or two drops causing perfect insensibility of the cornea and

conjunctiva in from two to three minutes, which lasted, on an average, about ten minutes. The drug is not so toxic as cocain, while its anesthetic effect is fully equal to that of the latter. The one great advantage of the eucain is that it does not affect the pupil or accommodation, the former acting freely to light stimulus. On the other hand, however, there is the severe burning pain that follows the instillation in many cases, and the hyperemia of the conjunctiva, which is present more or less in every instance, lasting about half an hour after the anesthesia passes off. Unlike cocain, the solutions of eucain are very stable, and can, therefore, be easily sterilized, besides producing no desquamation of the superficial corneal epithelium.

* *

DR. D. D. STEWART states that the most important *function of the stomach* to attend to is the *propulsive*. It matters very little whether peptonization in any amount occurs in the stomach, if the latter empties itself within the normal period into the duodenum, in which organ, through the agency of the trypsin of the pancreatic juice, the digestion of proteids proceeds actively. Far too much attention is paid to ascertaining the absence or presence of hydrochloric acid without regard to discovering the condition of the motor function, whether atony exists or not. If only one function could be investigated, the motor would be, by all odds, the most important. The stomach is really, after all, little more than a mere receptacle for food. In it some starch digestion occurs before hydrochloric acid becomes noted in any amount as free acid, and partial peptonization of albuminoids takes place. Fats are little, if at all, acted upon. The digestion of all these takes place completely and efficiently in the upper bowel, under the influence of the three ferments of the pancreas.

THE PHILADELPHIA POLYCLINIC

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PHILADELPHIA, JANUARY 23, 1897

INSECTS AND DISEASE.

SINCE the development of sanitary science is so largely in the hands of physicians it may be worth while for a medical journal to devote a few lines to the evidences that the insect world is a not unimportant factor in the distribution of disease. We called attention some weeks ago to a publication by the United States Department of Agriculture, in which it was indicated that accumulations of horse-manure are the common breeding-spots of houseflies, and hence the abolition of the horse, now apparently impending, may give us some relief of the fly-nuisance.

A more interesting feature of the question is the evidence afforded by recent researches, especially those of Manson, that the mosquito is the intermediate host of the malarial parasite. A score or more years ago, an article appeared in a medical journal giving twenty reasons for regarding mosquitoes as the cause of malaria and many of the reasons were striking. From Manson's papers it would appear that this earlier writer was not far from the truth, although he expressed it somewhat indirectly.

From these recent researches we may

gather some points of great practical importance. The mosquito is a frequenter of surface-water and can, therefore, very easily infect it with malarial germs, and as Manson points out, even if the insect does not directly reach water (the male insect always dies away from it) the body may be blown by the wind and reach a neighboring pool.

We can have but little doubt also that household insects may be carriers of infection from person to person and house to house. Much remains to be investigated in these matters; indeed, it is curious to note that the habits and life history of common insects have until lately been but imperfectly known. It is not worth while to play the part of alarmists; there are causes of disease much more serious than infection through the medium of house-vermin, still we cannot afford to ignore them altogether, and we must look with approval on the modern methods of building, and especially modern plumbing, which give us constructions much less liable to harbor vermin than the older constructions. The old-fashioned washstand, water-closet, sink and bath-tub with their wooden enclosures, offered unlimited breeding and hiding places for insects as well as rubbish, and we are well rid of them in the interests both of hygiene and cleanliness.

H. L.

Editorial Notes

Officers of the Polyclinic Faculty.—At the meeting of the Polyclinic Faculty, January 18th, the following officers were elected for the ensuing year: President, Dr. Howard F. Hansell; Vice-President, Dr. Charles W. Burr; Treasurer, Dr. Henry Leffmann; Editor, Dr. S. Solis-Cohen. Dr. Stern was again designated Director of the Laboratories. The annual reports of the various departments were of a favorable nature, and showed that the work of the institution is steadily

progressing, despite the hard times and other drawbacks.

* *

New Chairs in the Faculty of the Philadelphia Polyclinic.—At the meeting of the Board of Trustees of the Philadelphia Polyclinic, held January 19, 1897, upon recommendation of the Faculty, new chairs were created, and appointments made to them as follows: Dr. Addinel Hewson, Professor of Anatomy; Dr. Joseph S. Gibb, Professor of Diseases of the Throat and Nose. Dr. Hewson is well and favorably known to alumni of Jefferson Medical College, and to the profession generally, as being for many years Demonstrator of Anatomy at Jefferson. Dr. Gibb has served for some years as Adjunct Professor in the department of Diseases of the Nose and Throat, and his appointment is, therefore, in the nature of a deserved promotion.

News Item

THE ANNUAL MEETING OF THE CORPORATORS OF the Philadelphia Polyclinic and College for Graduates in Medicine was held on Monday, the 11th instant. Dr. John B. Roberts, the President of the Corporation, was in the chair. Reports of the Board of Trustees, the Treasurer, the Faculty, and the Ladies' Aid Society were presented, which gave an interesting idea of the large work of the Institution during the past twelve months.

The work of the Hospital during the past year and its increase over the preceding year are briefly as follow:

	1895.	1896.	In-crease.
Total number of New Walk- ing Cases	14,708	17,392	2,684
Total number of return visits of old cases	51,964	59,608	7,644
Total number of patients ad- mitted to the Hospital . .	608	689	81

The total number of visits made to the Dispensary during the year was 77,000. The number of clinics held each week was 136, in which the services of 138 Professors, Adjunct Professors, Lecturers, Instructors and Clinical Assistants were engaged. There were 295 free cases treated in the wards of the Hospital. During the year an average of 11 operations under ether were performed each week.

During the year the following legacies have been left the Institution: From the Executors of the Estate of Simon Muhr five per cent. of one-third of the resi-

duary estate, of which \$2,456.02 have already been received in cash and securities. Under the will of Hosier Leslie Frederick Morgan the Institution has received \$175.00. From the Executors of the Estate of Julia A. Phillips \$877.40. Under the will of Jacob H. Gemill, deceased, the Polyclinic has been named as one of the provisional legatees of the residuary estate. Under the will of Sarah Phillips, deceased, the Institution is to receive \$10,000. Barclay Lippincott, Esq., has endowed a perpetual free bed in memory of Mary Lippincott. Dr. and Mrs. S. D. Risley have endowed a bed in the Children's Ward for one year in memory of Florence D. Risley. A friend of the Flower Committee has continued to support the "F. H. S." Crib; M. B., the M. B. Surgical Bed; Miss Annie Waln the Waln Free Bed; and the Ladies' Aid Society its Free Bed for accidents for part of the year.

The year just past has been a very important one in the history of the Training School for Nurses as on October 1st the course of instruction in this department was lengthened from two to three years. This change will result not only in giving increased efficiency to the Nursing force, but will enable the school to give its pupils a very thorough and systematic course of training.

The new Children's Ward which was opened in the early part of the year, has proved a most useful and necessary addition to the facilities of the Hospital and is often taxed to the full capacity. Endowments for free beds in it are much needed.

Through lack of funds many necessary alterations and repairs have been delayed, as the Board has felt it unwise to make any expenditures which could possibly be avoided. It is therefore hoped that through the liberality of its friends the coming year may see the accomplishment of many delayed plans.

Owing to the large growth of the out-patient department and the establishment of new Clinics, the first floor of the building is proving too small for the requirements of this department. A power laundry is still one of the great needs of the Institution, as is also a suitable Nurses' Home.

A friend of the Institution has recently purchased a lot 48 x 63 feet adjoining the Naudain Street front of the Hospital and has agreed to turn it over to the Institution at any time at cost. It is earnestly hoped that some friend may be found ere long who will endow a Nurses' Home to be built on this site, the lower floors of which building could contain additional Clinic rooms.

The following persons were elected corporators: E. B. Cox, Jr., Barclay Lippincott, Mrs. S. D. Risley, Miss Maud Banfield, C. W. Burr, M.D., H. F. Hansell, M.D., J. K. Young, M.D., D. D. Stewart, M.D., A. A. Eshner, M.D., E. L. Vansant, M.D., J. Frank Speer.

The following were elected to serve as Trustees for the coming year: *President*, John B. Roberts; *Vice-President*, Francis S. Keese; *Secretary*, Franklin B. Kirkbride; *Treasurer*, Henry Leffmann; Hon. Wm. N. Ashman, Hon. Henry K. Boyer, Charles K. Mills, David Jayne Bullock, C. C. Roberts, Samuel D. Risley, Thomas S. K. Morton, William E. Donovan.

THE PHILADELPHIA POLYCLINIC

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JANUARY 30, 1897

THE OCULAR COMPLICATIONS IN DIABETES INSIPIDUS.

BY HOWARD F. HANSELL, M.D.

Professor of Diseases of the Eye in the Philadelphia Polyclinic; Clinical Professor of Ophthalmology in Jefferson Medical College.

A REVIEW of the recent literature discloses but few references to polyuria as a cause of inflammation or atrophy of the optic nerve or hemorrhages or patches of degeneration in the retina. The only papers that Leber quotes as bearing on the subject prior to the appearance of his article on "Diseases of the Retina and Optic Nerve" (in Graefe and Saemisch's Handbuch, vol. v), published in 1877, are an article by Bader (*Oph. Hosp. Rep.*, p. 291, 1861), that contains a meager account of the case of a man, 39 years old, the subject of diabetes insipidus with monocular retinitis and vitreous hemorrhages, who eventually became blind in that eye from glaucoma, and another by Galezowski (*Traité des Mal. d. Yeux*, p. 646, 1871), in which he mentions that occasionally diabetes insipidus is complicated by simple retinal hemorrhages that, in the cases observed by him, caused no disturbance of vision. On the other hand, numerous publications have appeared, dealing with the diseases of the eye dependent upon diabetes mellitus, and it is well known that iritis, cataract, vitreous opacities, neuritis, retinitis and retinal hemorrhages are caused by that disease. It is less positive, although apparently well substantiated, that amblyopia, limitation of the fields, temporary hemianopsia and nuclear paralysis of the muscles may have the same cause.¹

¹ For a review of the bibliography of the eye lesions in diabetes mellitus, from 1859 to 1893, see Dodd's article, *Knapp's Archives*, April, 1895.

Knies ("The Eye in General Disease") says: "It is well known that diabetes insipidus is produced by destruction of a certain part of the floor of the fourth ventricle. In almost all cases in which visual symptoms and polyuria are associated, the latter is a symptom of the same cerebral disease which has given rise to the former." He refers to Heyden, Handfield Jones, David Raynaud and Gayet ("Jahrb. f. Augenh.," 1875), and classifies diabetes mellitus, diabetes insipidus and phosphaturia as similar disturbances of nutrition, and remarks, "It is only when the abnormal products of disassimilation exert a toxic action that the symptoms appear which are so frequent in the terminal stages of diabetes."

A patient was recently admitted into the wards of the Jefferson Hospital, whose eye-ground presented the retinal changes characteristic of albuminuria in striking degree, with two exceptions, namely, the star-shaped figure, perfect in form and resembling in size and color that commonly seen at the fovea in cases of Bright's disease, was found below and to the nasal side of the disk, and about $\frac{1}{2}$ disk diameter removed from it, and the papilla was swollen more than we usually find it in albuminuric retinitis. Round white patches of degeneration were scattered here and there throughout the fundus, and numerous small, round and flame shaped hemorrhages and a slight edema of the retina

adjoining the nerve-head were prominent changes. The lens and vitreous were clear. V. $\frac{2}{3}$. The man was 39 years old, and complained only of decreasing vision. The condition of the fundus of the right eye could not be learned, since the lens was cataractous and the ball atrophic, dating from an injury received many years before, that had completely destroyed sight. The urine, repeatedly examined, showed no trace of albumin or sugar, but was abnormally abundant, rich in phosphates, and of specific gravity varying but little from the healthy average. Upon admission he passed 79 ounces daily. Under constitutional medicinal treatment and regulated diet, the phosphaturia disappeared and the amount of urine was reduced to 50 ounces in the twenty-four hours.

Vision improved to $\frac{3}{8}$, although the fundus showed no decided change from its earlier condition.

It is quite possible that the optic neuritis and the hemorrhagic retinitis were the direct result of the lowered power of resistance of the walls of the retinal bloodvessels and the diluted condition of the blood, both causes combining to facilitate the escape both of serum and of blood itself into the adjacent structures and to induce disease of their elements. The hypertrophy of the nerve fibers in the shape of a star and its unusual location to the nasal side of the disk are not readily explicable, either on the assumption of local disease or of a lesion in the floor of the fourth ventricle.

VACCINATION AND SCHOOLS.

BY R. A. MARTIN, M.D., Philadelphia.

IN view of the discussion in regard to vaccination now going on in the public press, and the proposition to secure some modification of the law requiring successful vaccination before a child can be admitted to the public schools, it may be well for physicians to consider their relations to the subject and their duty to their patrons and to the public.

Dr. Lee, in a recent issue of the *Philadelphia Inquirer*, forcibly and candidly stated the status of vaccination. What I now plead for is an equally candid dealing with the public on the part of physicians when consulted in regard to vaccinating children. I enter upon no argument in favor of vaccination, for there is nothing in the whole realm of preventive medicine so well proved both by history and experience as that vaccination is a prophylactic against smallpox.

It is not easy to understand how an intelligent physician can entertain any opposition to vaccination. There are some reasons why parents may object. A disinclination to have

done for a child what the child objects to because it may give temporary inconvenience; an unwillingness to incur the expense when danger is not imminent, and a not well-grounded fear of blood-poisoning are among the reasons which induce parents to object to vaccination. The latter reason will bear a little consideration, because physicians so often speak of a severe inflammation with a large and deep ulcer at the point of vaccination as being successful vaccination *par excellence*. I am disposed to regard such a result as distinctly detracting from the protective influence of vaccination, indeed, as not being true vaccinia at all. Personally, I always deprecate such a result in my own practice and do not hesitate to express my doubt of its efficiency. I am not claiming that it is the fault of the vaccinator or of the vaccine virus used, for it may result from contamination in any of numerous ways, more especially if there is a predisposition thereto on the part of the patient.

Another unwise thing to do is to assure parents that their child is immune to smallpox when it is immune to vaccination. Such assurance leads parents and patients into a false security and may lead them into rash and unnecessary exposure. With the laity this belief is almost or quite universal, and not without reason. I consider it of the utmost importance to warn parents that failure to secure successful vaccination is no guarantee whatever that the subject is not susceptible to variola; I mean when vaccination has never succeeded. Another fallacy that I consider it the duty of physicians to combat is, that a person who has been exposed to smallpox contagion without contracting the disease is, therefore, forever immune to variola. I regard it as a mistake also, to assure parents that successful vaccination is an absolute and invariable safeguard against variola. It is much better to assure them, as we can honestly do, that vaccination does protect a very large majority absolutely; that in the remainder it so modifies the disease as to strip it of its terrors. Another fallacy, which maintains among the laity, and, I am constrained to think, to some extent among physicians also, is that the contagion of varioloid will produce varioloid in those unprotected by vaccination. There can be no theory more false. But to return to the proposition before the Board of Education: *i. e.*, that a child that has been carefully vaccinated shall be admitted to the school although the vaccination has not been successful.

This is a proposition of which I have been an advocate. Some recent experience, however, has led me to think it will be well not

to be in too much of a hurry to adopt it. A year ago a boy was brought to me, who had been vaccinated by the vaccine physician of the ward, but unsuccessfully. I vaccinated the boy three times without success, and on a certificate to that effect he was admitted to the school for the remainder of the year. At the beginning of the present school year he was brought to me again, and I vaccinated him twice without success. As they refused to allow him to attend school I vaccinated him again, with perfect success.

At the beginning of this school year a girl of 13 or 14 years of age was brought to me, the mother saying she had been vaccinated six or eight times, but never successfully. I vaccinated her and failed, but as she could not get into the school, I vaccinated her again with a perfect result. This does not prove that there are not persons immune to vaccination, but it does prove that it is well not to be too hasty in our conclusions.

Another and much more cogent reason for hesitating to favor a change in the law is the result of recent experiments with the contents of the kine pustule which seem to show that all the layers of the contents of the pustule are not equally efficacious, and that the true virus is to be obtained from a single layer of the pustule contents.

Using this particular part, 700 successive vaccinations have been performed without a single failure. This is strong evidence, and if further experiments prove the correctness of these results the law will need no modification, indeed will be much better without any relaxation of its requirements.

LEGAL DECISIONS AFFECTING PHYSICIANS.

Reported by Henry Leffmann, M.D.

We deem it of some interest to record from time to time decisions by courts of last resort, concerning matters affecting medical

men in their business and professional relations. It will not be necessary to go into much detail nor to report more than a few of

the cases, since many of them are of interest to lawyers only, and, moreover, the law has not yet become fixed in all respects, and decisions even by the most august court are to be considered as marking rather the trend than as establishing the final view. On the principle that one story is good until another is told, we may say that a decision is good until it is reversed. It has been remarked by a learned jurist that a court occasionally discovers that it has made mistakes and then either solemnly reverses itself, or so overlays the original decision with exceptions and limitations that it becomes valueless as a precedent. It must also be borne in mind that on novel questions, courts of equal standing may differ. A decision in Pennsylvania may be the reverse of that in Nebraska.

Visiting-lists as Evidence of Services. Courts have ruled that no "visiting-list" of which the entries are simply the names of patients accompanied by a succession of hieroglyphics unintelligible to a jury, and requiring to be explained and translated by the person making them, can be accepted as a book of original entries. "Allowing the utmost latitude to the plea of convenience and necessity, the law cannot tolerate as self-proving an entry of services which can be translated only by means of a glossary." Such books have been rejected in a suit for services in Pennsylvania, and the same rule prevails in the other States, except, perhaps, Mississippi. "A due regard for his own interest should lead the physician to keep a book of original entries, showing a charge for attendance, with the date, the name of the person against whom the charge is made, and the amount of compensation for the services or attendance."

Sale of Practice. An agreement for the sale of a practice for ten years, was violated by the seller returning to the place and resuming practice after four years' absence. An offer by the seller to return the amount paid him was not considered final, the Supreme Court allowing further proceedings to determine the loss likely to be sustained by the buyer by reason of the change. The Court re-

strained the seller from practising in the locality until the question of damages was settled.

The Law of Libel and Slander as Affecting Physicians. Libel consists in the utterance of any communication otherwise than by oral speech unjustifiably accusing private individuals, officials or governments of anything tending to make them ridiculous or injure them in reputation or public esteem. Slander is an oral statement unjustifiably accusing a person of a crime, a loathsome disease, incapacity, or dishonesty, or of any fault which tends to injure the person or his business. The Courts have decided that an accusation may be slanderous or not according to the vocation of the accused. To accuse a physician of general professional ignorance or malpractice is actionable *per se*, but to state that in a special case he was at fault is not slanderous, unless special damage is proved. A retired physician, since he no longer gains his living by his profession, may be accused with impunity of what would "slander" a man in actual practice. Slanderous words uttered in one State may not be actionable in another State unless proved to be so also in the place uttered. A person uttering slander to a second party who repeats it to the detriment of an individual may escape responsibility if the damages result from the utterance of the second party and not from that of the originator. In case of libel, any accusation holding a person up to scorn or ridicule, whether professionally or as a private person, is actionable. A physician who attempts to achieve notoriety by puffing himself cannot recover damages from those who further his attempts. It is slander to falsely attribute a contagious disease to a person, unless a statement was necessary and there was a mistaken diagnosis. A physician condemning any article used in medical practice is liable to the manufacturer, if the said physician's statement be incorrect.

Current Literature

REPORT ON OBSTETRICS.

BY E. P. DAVIS, M.D., and W. H. WELLS, M.D.

Version with the Patient in the Prone Position.—Mensing (Centralblatt für Gynecologie, 1896, No. 23). The advantages of

this method, are: The outlet of the pelvis is directed above, giving the operator much more room for the insertion of the hand. The operator's hand and arm are in the position of pronation, giving a better use of the muscles and tactile sense. This posture widens and opens the uterus and vagina. The risk of bruising the soft parts is less, and the dangers of tearing the uterus from the vagina, and of air embolism are minimized.

Unusual Symptoms of Teething.—W. G. Winner (*Medical and Surgical Reporter*, July 11, 1896). The case cited developed a condition which closely resembled pneumonia accompanied with diarrhea, and, although death seemed imminent, recovery ultimately occurred on the ninth day, when an incision was made through the gum over both central incisors which were nearing the surface.

Veratrum Viride for Puerperal Eclampsia.—(*Canadian Practitioner*, 1896, No. 9). The method of administration advised is that of hypodermic injections in five minim doses, to be repeated in half an hour, administering from one-fourth to one-third of a grain of morphin with it to control any unpleasant effects. The result sought being to prevent convulsions and reduce the frequency and tension of the pulse.

Infanticide with Carbolic Acid.—Cöster (*Viertel-Jahrschrift für Gerichts-Medicin*, Bd. xi., H. 2). In the case reported the gastric mucous membrane was of a grayish-yellow color, and not white as is usually stated. The veins are sometimes filled with a bright-red solid substance, as if injected artificially; this he considers is due to its rapid diffusion in the circulation, producing instantaneous blood coagulation. The intense poisoning qualities are the result of its reducing influence upon the hemoglobin. A case is cited of death produced by placing a compress, saturated with carbolic acid, upon the umbilicus of a new-born child; the autopsy made the following day disclosed absolute proof of carbolic acid intoxication.

Extra-uterine Pregnancy.—L. E. Frankenthal (*American Gynecological and Obstetrical Journal*, September, 1896). In the consideration of this subject, which embraces

an experience of thirty-seven cases, the author arrives at the following conclusions: (1) Impregnation occurs in the tube: (2) In the majority of cases, the etiology of extra-uterine pregnancy can be established by a mechanical hindrance to the passage of the fecundated ovum from the tube to the uterine cavity; (3) One should treat conservatively only those cases seen some time after primary rupture, in which he feels fairly certain of the death of the fetus, the alarming symptoms have subsided, and, presumably, absorption is going on. (4) Operate early, should the conditions be otherwise. (5) Shock does not counterindicate the operation, for frequently the removal of the foreign body from the peritoneal cavity relieves shock. (6) Drainage, preferably vaginal, should be employed in all cases. (7) To relieve shock, transfuse salt solution when the amount of blood lost is not too great, and when the hemorrhage has not occurred repeatedly at long intervals; for these conditions, direct transfusion should be practised, as the functions of the vital organs have become impaired and they need more than a mechanic stimulus. (8) To hasten some operations, merely clamp the adnexa and leave the clasp in situ. (9) Whenever possible, remove the placenta; if not, tampon and drain. (10) In deciding when to operate after viability, do not consider the child, for not only are they short-lived, but they are likewise deficient in development. (11) Sterility on account of the number of criminal abortions and prevention of conception is not a very reliable symptom.

Umbilical Hernia Containing the Heart in a New-born Infant.—Arndt (*Centralblatt für Gynecologie*, 1896, No. 24). The child when born was apparently in good health. At the umbilicus there was a tumor the size of an apple, continuous with the cord, through the walls of which could be seen, coils of the intestines, the liver and the pulsating heart. Celiotomy was performed seven hours after birth. In the hernial sac were found besides the heart and the deformed liver, the stomach, the ileum and part of the colon. The heart, which was not surrounded by pericardium, could not be replaced in the thorax, making the prognosis absolutely fatal.

The Laboratory.

Under the Editorial Charge of Henry Löffmann.

Note on the Bismuth-test for Sugar.—Experiments were made to determine whether all the common insoluble bismuth compounds are equally applicable to the test. It was found that the oxynitrate (subnitrate) is most sensitive. The oxychlorid and oxycarbonate (subcarbonate) are both reduced, but not so quickly as the oxynitrate.

Jolles' Test for Albumin.—The following test for albumin, credited to Adolf Jolles, is going the rounds of the journals in a form that will be scarcely intelligible to many, since "natr. chlorat." is given as one of the ingredients. We give the description in correct language :

Mercuric chlorid	1 gram.
Succinic acid	2 grams.
Sodium chlorid	1 gram.
Distilled water	50 c.c.

5 c.c. of the filtered urine are acidulated with 1 c.c. acetic acid (30 per cent.), 4 c.c. of the test solution added and the whole shaken. A comparison tube is prepared by acidulating in the same way another portion of urine and adding 4 c.c. of distilled water. Very small quantities of albumin can be detected by comparing the two liquids. The test is said to be applicable to almost all conditions of the urine, except that containing iodids.

Salicylsulfonic Acid as a Test for Albumin.

—In a recent number of the *Medical Record* Dr. R. Stein calls attention to the value of this test, claiming that it is very delicate and satisfactory. He terms it sulfosalicylic acid, which is an erroneous name that has unfortunately become current. Sulfosalicylic acid would designate a substance in which sulfur replaced the oxygen of salicylic acid; the proper name, given at the head of this article, shows that the body is one of that numerous and important class of derivatives

produced by the action of strong sulfuric acid on organic bodies.

Salicylsulfonic acid is produced by the action of strong sulfuric acid on salicylic acid. A sample obtained from a well-known house is a soft gray powder and friable lumps, soluble in water. Dr. Stein gives references to the bibliography and I have looked up the earliest of these, a paper by George Roch (*Pharmac. Centralh.*, 1889), which is the announcement of the albumin-coagulating property but gives no detailed description of the preparation of the acid. As might be expected, he gives the correct name and it is unfortunate that the erroneous name has been given currency. Roch found that the acid was in part carried down with the coagulated albumin.

The test is applied by dropping a small mass of the powder into the filtered urine without heat. The precipitation occurs promptly. The few experiments I have so far made with it show that it is quite delicate, but it appears to be less delicate than Jolles' test described above. A sample of urine containing a notable quantity of albumin was diluted twenty-five times, and it was found that Jolles' test still gave a marked reaction while the salicylsulfonic gave only a faint precipitate. A sample of urine containing an unusually large quantity of nucleo-albumin (mucin) gave no very distinct reaction by either test. A sample of presumably normal urine also gave no appreciable reaction by either test. I have not had time to experiment on the action of these tests towards the different forms of proteids that may occur in urine, but I expect to do so, and also to fix approximately the limits of delicacy.

It will be proper to call attention to another and rather more serious error in nomenclature which occurs in Dr. Stein's paper. He refers to the test with acetic acid and potassium cyanid. Ferrocyanid is doubtless meant.

THE PHILADELPHIA POLYCLINIC

Brief, practical, original articles, and news of general professional interest are solicited for publication in this journal. Contributions accepted will be paid for on publication, or, if desired, 250 reprints will be furnished in lieu of other compensation.

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PHILADELPHIA, JANUARY 30, 1897

AVAILABLE MEDICAL AND SURGICAL OPPORTUNITIES OF PHILADELPHIA.

In Philadelphia there are some twenty-five large hospitals at which service is carried on by over one hundred and fifty physicians and surgeons, with their assistants and resident officers. Every day important operations, and rare and interesting cases are to be found in several of these hospitals. A visiting doctor, whether from the smallest village or a great city, would find, in one or more of them, cases of great interest to him on any day in the year.

For several years the Philadelphia Polyclinic has endeavored to keep its students informed each day as to the operations and lectures open to them in the other Philadelphia hospitals. It has now undertaken to extend this service into a regular bureau of medical information, accessible and free to all members of the medical profession.

A plan is being put into operation, whereby the physicians and surgeons on duty at the various hospitals in the city will each day notify the clerk at the Polyclinic building of what they can offer of interest to medical visitors. Even regarding clinics where classes of students are not admitted, the

physician spending a day in the city, can find out which of his professional friends are on duty, and what they expect to have at their clinics; and in this way, with the greatest economy of time and travel, can arrange his day of professional sight-seeing and benefit. And many times he can thus make it a full and profitable day, seeing all that he wished to see, instead of arriving at this or that clinic just after the important operation is over, or the interesting medical or special case dismissed, having, perhaps, been detained by an effort to see some other friend who was for the day out of the city.

We believe, that this effort to render more available the professional advantages Philadelphia has to offer will be appreciated by visitors; and will prove beneficial to the institution that is undertaking it, and to all who are asked to co-operate in the movement. It certainly is a great pity that, day after day, important operations should be going on at one place, the operators wishing for spectators who could appreciate their cases and work; while, at the same time, in another part of the city are visitors seeking to see just such operations, and disappointed simply because no proper means of communication between them has been established.

The medical visitor in Philadelphia, to avail himself of this plan, will only have to visit the Polyclinic (eight minutes' ride from the Broad Street or Reading Terminal Stations by the South Seventeenth Street cars) at about ten o'clock in the morning of the day he wishes to spend to the best advantage among the Philadelphia Hospitals. He will there find most of the desired information prepared for him, and the clerk ready to supplement it by use of the telephone. Or if he chooses to depend on telephone he can call up the Polyclinic from any part of the city, and need not go to the Hospital at all.

E. J.

Editorial Notes

Polyclinic Teaching of the State Medical Society.—The committee of which Dr. C. L. Stevens, of Athens, Pa., is chairman, has issued an attractive program for the year 1897. We trust that the county societies will avail themselves of this opportunity for strengthening themselves, and making all their work more attractive.

Municipal Hospital of Philadelphia.—An annex to the diphtheria-pavilion, comprising two wards and four private rooms, with porches, and an administration building, have been added to the Municipal Hospital of Philadelphia. This is one of the best conducted institutions in the medical world.

In the Clinics

DR. CANTRELL said that simple purpura was often very rebellious to treatment. If it is found that treatment by medicine fails, a short country travel may entirely relieve the condition.

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AN interesting case in the ear clinic this month is communicated by Dr. Stout. It showed to a striking degree the *alterations of the auricle due to the action of its intrinsic muscles*. These little muscles, six in number, have, in man, but little or no range of action as a rule, and when present their slight motion is involuntary. In the case in question, however, their action, as shown by the decided change of form of the auricle, was very pronounced. They were thrown into play during the tests for hearing. When the patient was intent on listening to the watch the concavity of the auricle became decidedly deepened, very much as if a purse-string had been rove around its edge and then drawn taut.

DR. D.D. STEWART states that it is utterly useless to test for *lactic acid*, as it is commonly done, after the ordinary trial meals now in use. All of these contain, preformed, some lactic acid. Lactic acid is not, as was once supposed, a normal product of the first stage of gastric digestion. It is never formed normally in the stomach. When it does occur, not pre-existing in the food eaten, its presence is due to bacterial action and is an indication of pyloric stenosis, due to probable *carcinoma*. It is rarely encountered in dilatation other than to that due to carcinoma. It is not formed or found, as some suppose, in the presence of more than the merest trace of free HCl. The micro-organisms that produce it cannot thrive in the presence of hydrochloric acid. *Sarcina ventriculi*, on the contrary, seem to require the presence of a small amount of hydrochloric acid for their best development. Their presence in the stagnating contents of the stomach usually suggests also the presence of free HCl, and they rather speak against and not in favor of carcinoma, indicating benign dilatation.

BOOKS RECEIVED.

ARTIFICIAL ANESTHESIA. A Manual of Anesthetic Agents and their Employment in the Treatment of Disease. By Laurence Turnbull, M.D., Ph.G. Fourth Edition, revised and enlarged. Illustrated. P. Blakiston, Son & Co.

AUTOSCOPY OF THE LARYNX AND THE TRACHEA. (Direct examination without mirror.) By Alfred Kerstein, M.D., Berlin. Authorized Translation. (Altered, enlarged, and revised by the author.) By Max Thormer, A.M., M.D., Cincinnati, Ohio. With twelve illustrations. 8vo, pp. 68. The F. A. Davis Co., Philadelphia. 1897.



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EXTRACTS

FROM THE

Fourteenth Annual Announcement of the Philadelphia Polyclinic and College for Graduates in Medicine.

GENERAL INFORMATION.

The Philadelphia Polyclinic and College for Graduates in Medicine was organized in December, 1882, and opened for clinical work and teaching early in 1883. It has steadily extended its facilities and opportunities for practical work, until now it has entered upon its fifteenth year with a corps of fifty professors, lecturers and adjunct professors and thirty-one competent instructors; one of the best hospital buildings devoted to post-graduate instruction in the world, and a laboratory building completely equipped from the principal manufactories of this country and Europe, and including a *Roenigen-Ray Department*, the work of which is unexcelled; while in addition to its own dispensary services aggregating 18,000 new cases per annum, the clinical advantages of all the great hospitals in Philadelphia are available by its pupils. Although its classes continue to increase, it still makes a feature of offering the *direct personal instruction* and full opportunities for actual clinical work that have been so highly valued by its former pupils.

The Polyclinic opens to all graduates in medicine its facilities for acquiring a practical acquaintance with the clinical aspects of disease and the diagnostic procedures and methods of treatment in general medicine and surgery that were formerly attainable only by those who obtained positions as resident physicians in the larger hospitals; and in the special branches, like gynecology and diseases of the eye, ear, nose and throat, the opportunities which it offers have never before been generally attainable, and are unsurpassed anywhere in this country or in Europe. The members of its limited classes *personally examine* cases of disease and employ the instruments of precision in diagnosis and treatment, participating in the actual work of the clinic and the laboratory.

To the facilities heretofore offered at this school have been recently added many improvements tending to its greater usefulness. Everything has been done with a view to aid in imparting knowledge to the pupil, and for his increased personal comfort. An amphitheatre, perfect in construction and equipment, with necessary sterilizing, etherizing, recovery and instrument rooms, has been built, as have additional surgical, eye, ear, medical and genito-urinary dispensary quarters, children's and obstetrical wards, a delivery room, private rooms, and quarters for the nurses. The laboratory building is one of the best in the country, and is completely equipped with all the appliances of the great modern laboratories.

Economy of Time.—Courses may begin at any date, and the hours for instruction in the various departments have been arranged with a view to enabling the pupil, whether he takes a single branch or many, to make the fullest possible use of his time. The total amount of work offered is many times that which can be undertaken by any one person at one time; so that there is much room for choice to meet the needs of each as to available time and desired subjects.

The **General Schedule** (pp. 17-19) shows 110 hours of work daily at the Polyclinic itself, and **Special Schedules** aggregating many times this amount will be found embodied in this pamphlet.

FEES.

The following fees are for tickets issued during the period covered by the regular winter session, from October 1st to June 15th.

Tickets are generally issued for courses of six consecutive weeks. When the physician-pupil can attend but one day in the week, the period is extended to three months. If for good cause a pupil is called home from his teaching, he is credited with the unexpired period, and this may be taken at any future time.

For the Clinical Courses, tickets are issued as desired—(1) for the teaching of any individual professor; or, (2) for all the teaching in any one branch, as Medicine, Surgery, Ophthalmology, Gynecology, etc.; or, (3) for a combination of two or more branches, as General and Orthopedic Surgery, Diseases of the Chest and General Medicine; or, (4) for all the Clinical Courses—a general ticket.

For the teaching of any one Professor, or for all the teaching in branches in which there is but one Professor, the fee is \$15.00. The fees for separate and combination tickets are shown in the following table:

FEES FOR THE CLINICAL COURSES.

	For Six Weeks.	For Twelve Weeks.
Clinical Medicine [and Therapeutics] (any Professor)	\$15 00	\$25 00
Clinical Medicine [and Therapeutics] (all teachers)	25 00	45 00
Diseases of the Chest (either Professor)	15 00	25 00
Diseases of the Chest (all teachers)	25 00	45 00
Diseases of the Stomach	15 00	25 00
Clinical Medicine, Therapeutics, Diseases of the Chest and Diseases of the Stomach (all teachers)	40 00	70 00
Clinical Surgery (either Professor)	15 00	25 00
Surgery, General and Orthopedic (all Professors)	35 00	60 00
Diseases of the Rectum	15 00	25 00
Genito-Urinary Surgery (any Professor)	15 00	25 00
Genito-Urinary Surgery (all teachers)	35 00	60 00
Diseases of Women (either Professor)	15 00	25 00
Diseases of Women (all teachers)	35 00	60 00
Obstetrics	15 00	25 00
Diseases of Children	15 00	25 00
Obstetrics and Diseases of Children	25 00	45 00
Diseases of the Ear (either Professor)	15 00	25 00
Diseases of the Ear (entire teaching)	30 00	50 00
Diseases of the Eye (any Professor)	15 00	25 00
Diseases of the Eye (all teachers)	35 00	60 00
Diseases of the Throat and Nose (any Professor)	15 00	25 00
Diseases of the Throat and Nose (entire teaching)	35 00	60 00
Diseases of the Skin	15 00	25 00
Diseases of the Mind and Nervous System (any Professor)	15 00	25 00
Diseases of the Mind and Nervous System (all teaching)	25 00	45 00
Diseases of the Mind and Nervous System (one Professor), and Electro-Therapeutics	20 00	35 00
Electro-Therapeutics only	10 00	15 00
Defects of Speech	15 00	25 00

A General Ticket entitling the student to attend the entire work and instruction in all the clinical departments, as given in the general and special schedules, is issued for one week at \$20, six weeks for \$90, three months for \$150, and one year for \$350. In all cases an extra fee is charged for any laboratory course. The Faculty would strongly urge those contemplating taking more than one course, to take a general ticket. Long experience it has been abundantly demonstrated that whether a student has or has not predilection for the study of the specialties, the most economical and satisfactory plan is that on which the general ticket is issued. In this way he can at a minimum cost map out a day's full work in those fields that are most congenial to his tastes.

The Laboratory Courses are not included in the general ticket, and no reduction is made in fees for such courses as are given during the summer term.

FEES FOR THE LABORATORY COURSES.

Anatomy	\$25 00
Operative Surgery on the Cadaver	30 00
Operative Gynecology	50 00
Fracture Dressing and Bandaging	15 00
One Part of Dissecting Material	5 00
Toxicology	15 00
Water Analysis (sanitary)	15 00
Urinary Analysis	10 00
Bacteriology	15 00
Pathology	15 00

Those desiring to pursue special work, or original research on some particular line, in the Chemical, Pathological or Bacteriological Laboratories, can make satisfactory arrangements.

For additional information address,

MAX J. STERN, M.D., *Secretary*,

Philadelphia Polyclinic and College for Graduates in Medicine,

Philadelphia, Pa.

or

MR. WM. S. LEFFMAN, *Clerk*.

DETAILS OF DEPARTMENTS.

SURGERY.

PROFESSORS.—JOHN B. ROBERTS, M.D.; LEWIS W. STEINBACH, M.D.; THOMAS S. K. MORTON, M.D.; MAX J. STERN, M.D.

LECTURER.—HENRY R. WHARTON, M.D.

ADJUNCT PROFESSOR.—COLLIER L. BOWER, M.D.

INSTRUCTORS.—MORRIS B. MILLER, M.D.; JOHN H. GIBBON, M.D.

CLINICAL ASSISTANTS.—A. L. BARCUS, M.D.; MARIE B. WERNER, M.D.; LUDWIG LOEB, M.D.; RICHARD WILSON, M.D.; M. W. FELLMAN, M.D.; FRANCIS J. KELLY, M.D.; A. L. MCKINLEY, M.D.; S. L. GANS, M.D.; ALFRED F. ALLMAN, M.D.; M. A. NEUFELD, M.D.; M. STALLER, M.D.; S. A. BUCHANAN, M.D.

The Surgical Department utilizes the great mass of clinical material offering at the Polyclinic Hospital, and throws open to students the surgical wards of almost every large hospital in the city. Major operations are of almost daily occurrence in the Polyclinic, and a large major and minor accident service is incident to the new buildings being situated in a densely populated district hitherto unprovided with surgical facilities.

Demonstrative clinical instruction (see rosters) is given daily in the wards, dispensaries and operating-rooms of the Polyclinic, and by members of the Faculty, in the following hospitals:

Episcopal,	Pennsylvania,	St. Mary's,
Children's	Philadelphia,	Woman's,
German,	Presbyterian,	Orthopedic,
Jewish,	St. Agnes',	Rush,
Methodist,	St. Clement's,	Howard.
University,	Jefferson,	

Pupils receive instruction in the diagnosis and operative treatment of surgical diseases and injuries, in surgical pathology, the use of instruments, and in the theory and practice of aseptic and antiseptic methods of wound-treatment. Two rooms for the preparation of sterilized materials have been built under the new amphitheatre; these have been fitted with the most perfect appliances known to modern science, and here pupils can familiarize themselves with the preparation and care of the materials used in modern surgery. Pupils are also given opportunities to dress and treat large numbers of cases, and are allotted to assist at or perform operations in suitable cases.

The class is likewise thoroughly drilled in the application of bandages, splints, fracture apparatus, plaster bandages and surgical dressings in general.

In accordance with the progressive methods of the school, the Faculty has recently added the necessary apparatus for photographing by the Roentgen rays, and the direct visual examination of bone lesions with the Edison fluoroscope. Demonstrations will be given from time to time as suitable cases present themselves.

Notices of operations other than those during the regular surgical clinic hours, to be performed at the Polyclinic or elsewhere, are posted upon the bulletin-board. For further particulars of this service see special surgical roster.

OPERATIVE SURGERY ON THE CADAVER.

PROFESSOR.—MAX J. STERN, M.D.

A surgical laboratory, elaborate as a clinical theatre and with a complete armamentarium, was added last year. The pupil is not required to furnish any instruments. A course is given in general operative surgery, embracing ligations, amputations, resections, trephining, and all the usual operations, the pupil performing the various procedures upon the cadaver, after familiarizing himself with the anatomy of the parts involved, under the supervision of the professor. Another course is given in which attention is particularly devoted to operative measures on abdominal viscera. This course includes operations on the intestines, ovaries, uterus, stomach, kidneys, etc., and is intended for those who desire to engage in the intelligent pursuit

of the associated specialties. The two courses may be combined in a general one. Facilities for dissection will be afforded to those who desire to pursue anatomical studies. It has also been an aim of the department to furnish the requisite facilities to practitioners for the rehearsal of new or special operations, and to give them opportunity to study complex anatomical regions under pleasing and comfortable environment.

EYE DEPARTMENT.

PROFESSORS.—EDWARD JACKSON, M.D.; SAMUEL D. RISLEY, M.D.; GEORGE E. DE SCHWEINITZ, M.D.; HOWARD F. HANSELL, M.D.

ADJUNCT PROFESSORS.—THEODORE B. SCHNEIDEMAN, M.D.; JOHN T. CARPENTER, JR., M.D.; JAMES THORINGTON, M.D.; CLARENCE A. VEASEY, M.D.

INSTRUCTORS.—FLORENCE MAYO, M.D.; ARCHIBALD G. THOMSON, M.D.; E. W. STEVENS, M.D.; HELEN MURPHY, M.D.; WM. M. SWEET, M.D.

CLINICAL ASSISTANTS.—MARY GETTY, M.D.; FRANCES W. JANNEY, M.D.; JOHN B. TURNER, M.D.; WM. M. CAPP, M.D.; MARIA W. HAYDON, M.D.

This course offers the best facilities anywhere attainable for the practical study of ophthalmology. The pupil is able to spend the greater part of the day in actual clinical work, using the ophthalmoscope, test-lenses, etc. From two to four hours of instruction are given daily by the professors, the remainder of the work being under the supervision of skilled instructors.

DETAILS OF INSTRUCTION.

Prof. Jackson's Service.

PROF. EDWARD JACKSON, ADJ. PROF. SCHNEIDEMAN. DR. FLORENCE MAYO, Instructor. DR. JOHN B. TURNER, Clinical Assistant.

Prof. Jackson lectures at the Polyclinic on Tuesdays and Fridays at 9 A.M., and conducts the clinic at Wills Eye Hospital on Tuesdays, Thursdays and Saturdays at 2 P.M.

Dr. Schneideman holds the clinic at the Polyclinic on Monday, Wednesday and Friday at 4 P.M., and at St. Christopher's Hospital at 9 A.M. on the same days.

Systematic Course on Refraction.—The lectures by Professor Jackson at the Polyclinic include a systematic course on Refraction and Ophthalmoscopy. The pupil should early provide himself with a good ophthalmoscope, to profit fully by the opportunities afforded for its use.

Prof. S. D. Risley's Service.

PROF. S. D. RISLEY, DR. JOHN T. CARPENTER, JR., DR. JAMES THORINGTON, Adjunct Professors. DR. HELEN MURPHY, Instructor.

The teaching in Prof. Risley's service is classified, so that a complete and systematic course of instruction in ophthalmology is given each six weeks.

Prof. Risley lectures at the Polyclinic on Thursdays at 4 P.M., and conducts the clinic at the Wills Eye Hospital on Mondays, Wednesdays and Fridays at 2 P.M., and has charge of the 9 o'clock A.M. service daily at the Polyclinic conducted by Dr. Thorington and Dr. Murphy.

In the Thursday 4 P.M. lecture a careful didactic course is given on the diseases of the external tunics and the surgical affections of the eye, all of which find ample clinical illustration at the rich service at the Wills Eye Hospital from 2 to 4 P.M., on Mondays, Wednesdays and Fridays, and at the daily service at the Polyclinic at 9 A.M.

Dr. John T. Carpenter, Jr., holds six conferences weekly, thirty-six in all, at the Wills Hospital, on the ophthalmoscopic diseases of the eye, where abundant opportunity is afforded for clinical demonstration and study.

Dr. James Thorington holds six conferences weekly, thirty-six in all, at the 9 o'clock service at the Polyclinic, on the Anomalies of Refraction and Accommodation, and the Wills Hospital service gives abundant additional opportunity for the study and correction of these errors by the pupils.

Careful attention is paid to the details of operations on the eye and its appendages; the ordering of glasses; the study of and operations for abnormalities of ocular balance; and the use of the ophthalmoscope and ophthalmometer. At least one evening in each course of six weeks is devoted to the study of the pathologic histology of the eye by Professors Risley and Randall. For this purpose both microscopic and macroscopic preparations of eyes with a known clinical history are employed and the lantern freely used as a means of illustration.

Prof. G. E. de Schweinitz's Service.

PROF. DE SCHWEINITZ, ADJ. PROF. VEASEY. DR. MARY GETTY, DR. FRANCES JANNEY, Clinical Assistants.

Operative Ophthalmology.—Professor de Schweinitz lectures at the Polyclinic on Tuesdays and Saturdays at 4 P.M., where he gives a systematic course in operative eye surgery. The pupils perform the various operations upon pigs' eyes under his direct supervision. He conducts the ophthalmoscopic examinations at the Orthopedic Hospital and Infirmary for Nervous Diseases on Thursdays at 4 P.M. From November to January and May to August, inclusive, he holds a daily clinic at the Philadelphia Hospital at 4 P.M. During the winter term he gives a practical course of operative instruction; and gives a clinic at the Jefferson College Hospital on Fridays at 1 P.M., to which Polyclinic students are welcome.

The clinic at the Children's Hospital on Mondays and Fridays at 3 P.M., is open to pupils of the Polyclinic under Dr. Thomson's instruction, and the eye cases in the wards are in charge of Professors de Schweinitz and Randall.

Prof. H. F. Hansell's Service.

PROF. H. F. HANSELL. DR. WM. M. SWEET, Instructor. DR. WM. M. CAPP, DR. MARIA W. HAYDON, Clinical Assistants.

Professor Hansell gives clinical instruction three days in the week, at 12 o'clock. On the alternating days the Clinic is in charge of Dr. Sweet. Prof. Hansell will also give systematic instruction on the anomalies of the ocular muscles. Pupils are invited to Prof. Hansell's clinical lectures at the Jefferson College Hospital, Fridays at 1 P.M.

DISEASES OF THE EAR.

PROFESSORS.—B. ALEXANDER RANDALL, M.D.; RALPH W. SEISS, M.D.

INSTRUCTORS.—GEORGE C. STOUT, M.D.; HENRIETTA DOUGHERTY, M.D.

ASSISTANTS.—JEANNIE S. ADAMS, M.D.; BARTON H. POTTS, M.D.; GEORGE FETTEROLF, M.D.; WM. H. FRITTS, M.D.; S. S. STRATTON, M.D.; A. H. AUDENREID, M.D.; W. H. SHIMER, M.D.

Instruction is given in the diagnosis and treatment of diseases of the ear by means of direct examination of patients under the supervision of the Professors, who personally teach each pupil in the methods of examination and the interpretation of the conditions seen. The time is principally given to actual practice in the study of cases and the application of treatment, with only little attention to the theoretical matters which can be readily obtained by reading. The practical surgical anatomy of the ear is constantly taught by means of normal and pathological preparations, models, photographs and microscopical sections. The rich cabinets of the Professors, as well as the magnificent collections in the Mutter Museum of the College of Physicians, illustrate admirably these much-neglected sides of the subject; and their utilization in conjunction with the clinical cases greatly facilitates the acquisition and retention of such a fundamental understanding of the subject. Stress is laid upon the recognition and treatment of the naso-pharyngeal conditions usually present, and upon the study of the broad general conditions underlying the local disease. The various operative measures of treatment are carefully considered and employed before the class in appropriate cases.

In addition to the facilities afforded by the Polyclinic, the aural cases at the adjacent Children's and Rush Hospitals will be utilized for teaching.

DISEASES OF THE THROAT AND NOSE.

PROFESSORS.—ARTHUR W. WATSON, M.D.; WALTER J. FREEMAN, M.D.; E. LARUE VANSANT, M.D. JOS. S. GIBB, M.D.

INSTRUCTORS.—LEVI J. HAMMOND, M.D.; KATE W. BALDWIN, M.D.; PHILIP FISCHELIS, M.D.; FRANK WOODBURY, M.D.; WILSON BOWERS, M.D.; B. F. R. CLARK, M.D.

ASSISTANTS.—R. A. MARTIN, M.D.; GEORGE C. KUSEL, M.D.; AARON G. MILLER, M.D.; P. S. DONNELLAN, M.D.; C. A. VANDERVOORT, M.D.; WM. M. BRADLEY, M.D.; ELEANOR ADAMSON, M.D.

The clinical service of this department is one of the largest in the city. Ample opportunities are here afforded to physicians taking the course for the study and treatment of the various phases of diseases of the upper air-passages. Each pupil is given individual instruction in laryngoscopy and rhinoscopy and abundant opportunity to gain the facility and skill which practice alone can give. The patients are daily utilized for drawing attention to the pathological conditions present, and the changes which these undergo as the result of treatment. A large number of operations upon the throat and nose are performed in the presence and with the assistance of the members of the class, and all the latest methods of procedure are demonstrated or discussed. Some eighteen hours a week of clinical work is done at the Polyclinic. Additional teaching and opportunity for study are given at the Howard Hospital twice a week by Prof. Watson from February to August, and for the other six months by Prof. Vansant.

Prof. Freeman holds a dispensary service at the Children's Hospital at 1.30 on Monday and Friday, and operates there on Wednesday at the same hour.

Prof. Freeman lectures at 2 P.M., on Tuesday, in the amphitheatre at the Polyclinic. A complete series of lectures on the anatomy, physiology and diseases of the throat, nose and larynx is given each six weeks.

Pupils are urged to provide themselves with the following instruments in order to take full advantage of the practical work offered: $3\frac{1}{4}$ -inch forehead reflector; Tüsch tongue depressor; Roth nasal speculum; No. 4 laryngeal mirror (23 mm.); No. 1 rhinoscopic mirror (13 mm.).

Pupils of the Polyclinic may attend the Clinical Lectures of Emeritus Professor J. Solis-Cohen, at Jefferson Hospital, on Fridays, at 3 P.M.

DISEASES OF THE MIND AND NERVOUS SYSTEM.

PROFESSORS.—CHARLES K. MILLS, M.D.; CHARLES W. BURR, M.D.

INSTRUCTORS IN NERVOUS DISEASES AND ELECTRO-THERAPEUTICS.—J. W. McCONNELL, M.D.; ELIZABETH BUNDY, M.D.

PATHOLOGIST TO THE DEPARTMENT.—ALOYSIUS O. J. KELLY, M.D.

INSTRUCTOR IN NEURO-PATHOLOGY.—J. H. W. RHEIN, M.D.

ASSISTANT IN THE NEUROLOGICAL LABORATORY.—M. A. SCHIVELY, M.D.

In this department, opportunities for studying all forms of nervous and mental diseases are afforded by the dispensary service of the Polyclinic, and the wards for nervous diseases and the Insane Department of the Philadelphia Hospital. Plentiful material is thus furnished for the examination of cases. Demonstrations are made at frequent intervals. The clinic is especially well supplied with static, galvanic and faradic apparatus. Systematic, practical instruction in electro-therapeutics is also given, which may be taken separately, if desired, at a reduced fee.

In connection with the Department, a Pathological Laboratory has been established, and is under the charge of Dr. Aloysius O. J. Kelly, Adjunct Professor of Pathology. In this laboratory are prosecuted investigations into the origin and minute tissue changes of morbid processes affecting the nervous system, and opportunities are afforded to pupils of examining specimens, and of acquiring some practical knowledge of neuropathology. The pathological material is chiefly supplied by the professors and others connected with the department; but others not connected with the institution are invited to send specimens for examination.

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A CASE OF KLEPTOMANIA IN ASSOCIATION WITH UTERINE AND RECTAL DISEASE.¹

BY L. W. STEINBACH, M.D.,

AND

SOLOMON SOLIS-COHEN, M.D.,

Professor of Clinical and Operative Surgery in the Philadelphia Polyclinic and College for Graduates in Medicines, Surgeon to the Philadelphia Hospital, etc.

Professor of Clinical Medicine and Therapeutics in the Philadelphia Polyclinic, Lecturer on Clinical Medicine in Jefferson Medical College, Physician to the Philadelphia Hospital, etc.

IN connection with the subject before the College we desire to submit the following report of a case under the surgical care of Dr. Steinbach and the medical care of Dr. Cohen, and in which we invited the assistance and counsel of Dr. Weir Mitchell, who kindly permits us to quote his opinion.

The case is one of mental, or rather moral, disorder (kleptomania) in an hysterical woman, the subject of chronic uterine and rectal disease. It is of some interest from the standpoint of medical jurisprudence, as the unfortunate patient was proceeded against legally in England, and having by advice of counsel submitted a plea of guilty of larceny, received a severe sentence of imprisonment; being liberated, however, through the interference of the Home Secretary, upon the medical testimony submitted. Her husband being an American citizen of high reputation, the good offices of the American Embassy were used in her behalf, and the case at the time excited considerable attention in the public prints.

Upon Mrs. C.'s liberation, husband and wife sailed for home, and before proceeding to the western city in which they reside, came to Philadelphia for the purpose of consulting Dr. Steinbach, who saw the patient for the first time on November 29th, two days after she had landed from England. The next day he made a careful examination.

He found that the uterus was hypertro-

phied to one and a half times its normal size; the mucous membrane was irregularly roughened and bled on the slightest touch by the sound. The cervix had a bilateral laceration, more extensive on the left side. The tear was well cicatrized. The rectum was found to be fissured below, ulcerated above. There were evidences of former ulcers that had cicatrized and several large turgescient arterio-venous varicosities (hemorrhoids) which bled freely. Dr. Steinbach advised removal of the patient to the Polyclinic Hospital, where, after preparatory treatment for a few days, the patient was anesthetized with ether, the sphincter ani dilated, the fissures cauterized with a Paquelin thermo-cautery, the ulcers treated likewise and the hemorrhoids clamped and cauterized.

The uterus was curetted and then the trachelorrhaphy performed by denudation of the cicatricial tissue and suturing with silk-worm gut. The patient subsequent to the operation complained of discomfort to a greater extent than is usual with those undergoing similar treatment. The temperature remained normal throughout convalescence.

Before operation and subsequently, upon various examinations by Drs. Mitchell and Cohen in consultation with Dr. Steinbach, a history was gradually obtained substantially and succinctly as follows:

The patient is 34 years of age and has been married 11 years. She has had one

¹ Extracted from remarks read in the Discussion on The Relation of Nervous Disorders in Women to Pelvic Disease, held before the College of Physicians of Philadelphia, February 3, 1897.

child, 10 years old, and no other pregnancy. During pregnancy she suffered much from hemorrhoids and was operated upon and since then has been subject to prolapse of the rectum, at times causing much distress.

Previous to fifteen months ago, she had suffered little from dysmenorrhea. The menses were excessive but otherwise normal. She had never been accustomed to rest during menstruation, although she would often faint on going into a warm room or being excited at this time. About fifteen months ago, following a wetting during menstruation, the flow ceased and the patient was confined to bed for some days with headache and feverish symptoms. Since then there had been no real menstrual flow; there was more or less offensive discharge at irregular times, and after two or three months a slight wetting of the diaper at what should have been the menstrual period. For some days preceding this there was considerable pain in the back and abdomen, the patient showed great nervous irritability and excitement and the tendency to headache and to fainting became exaggerated. The patient was at times subject to palpitation of the heart.

Inquiry into the patient's mode of life showed that she had been ever "on the go," her day being one of excitement, rather than mental occupation. She had always been fond of social pleasures and of shopping, but her husband, though by no means so wealthy as report declares, has been fully able to gratify her in these respects without any necessity for her to resort to larceny.

In person, Mrs. C. is of medium height, somewhat fleshy but of good form, the skin is fair and smooth, the muscles well developed though somewhat flabby. The cheeks are constantly flushed, the left face is moved less than the right, this difference being easily observed; the eyes are roving and restless. In London (the husband states) she heard voices and would go to the door to listen. Later these were also heard at night. She was born with some foot trouble, walked at 5 years and wore irons.

Dr. Cohen found no disease of the heart or lungs, although the second sound of the heart was somewhat accentuated and the patient exhibited the familiar signs of vasomotor instability. Digestion was normal.

Nothing pathologic was detected by either of us in the urine. At our request Dr. D. D. Stewart also carefully examined the urine, with the result of finding it practically a typically normal fluid; the quantity which had been scanty just after the operation having increased at the time of our examination to 1200 cubic centimeters in twenty-four hours during rest.

Concerning the offence for which the patient was prosecuted in England, it is unnecessary to enter into details further than to say that through sending to a shop to be matched, an article which had been abstracted from that very place, and to which the price mark remained attached, suspicion was aroused and various articles, some of value, some of no value and many for which she could have no possible use (including a toasting iron, some common towels and plated spoons marked with the name of a hotel on the continent) were found in the patient's trunk. She was therefore arrested, and brought to trial with the result stated.

The husband consulted Dr. G. H. Savage, Dr. L. M. Gabriel and Dr. W. C. Grigg, who united in the opinion that she was mentally and morally irresponsible for the offence, and that the exciting cause of her mental unbalancing was uterine disease with aggravation from the condition of the rectum. Dr. Savage concludes his opinion by saying: "I am used to seeing cases of so-called kleptomania. They are not uncommon among people, more particularly women, belonging to the upper and middle classes. They are commonly met with in women who have some uterine trouble, which might lead to hysteria or allied nervous troubles. The characteristics of the disorder are chiefly seen in the unreasonable nature of the acts, things of various value and interest being taken and the risk of detection run being out of all proportion to the value of the goods taken. I do not think that Mrs. C. had reasonable knowledge of the acts of which she was accused, and I believe she would suffer seriously from detention in a prison or asylum. She is of the class to which kleptomaniacs belong, and one must not expect to find other signs of insanity in her."

Dr. Gabriel testified that he had seen the patient some six months previously, shortly after her arrival in England; that she was

then suffering from frequent attacks of headache and irregularity and scantiness of the menstrual flow; that she was extremely neurotic, and that he had then advised rest and freedom from excitement.

Dr. Griggs' opinion was substantially the same as those quoted above. He likewise says: "I should mention that on the 3d of November, when I last saw Mrs. C., her monthly period had commenced. This would point to the fact that at the time she took the articles charged in the indictments, namely, between the 30th of September and the 5th of October, she must have been going through her monthly period, at which time her illness would be most likely to cause mental disturbance." In a letter to Dr. Steinbach he describes the uterine conditions as follows: "The fundus is extremely tender; by conjoint examination, the cervix and body as far as one can reach under these circumstances, very hard (a tear on the left side of the os), indicating to my mind some previous inflammation of these organs.

"The uterine sound passes $4\frac{1}{4}$ inches, the fundus of the uterus is irregular, and in some parts rough and nodular. It is very sensitive to the touch, producing considerable pain, which continues for many hours. There is slight hemorrhage, although great care was taken in making the exploration. She has also a constant offensive discharge. She will inform you that for the last twelve months in consequence of severe wetting during menstruation she has had a very slight loss at these times. I saw the diapers and verify to the truth of these statements. As she could not remain in England for proper treatment, I have advised Mr. C. to consult you."

In his testimony submitted to the Home Secretary, he adds: "She is intensely neurotic. The condition of things—a disease of the upper portion of the uterus, is a very common accompaniment of various forms of mania in women, such as melancholia, religious mania, nymphomania, and I have seen it in several cases of kleptomania. It is invariably coupled with much mental disturbance. The condition I discovered is quite sufficient to account for any form of mental vagaries which are so well known to affect a certain class of women (neurotic) with disordered menstruation. Her bowel condition would aggravate this."

In explanation of the plea of guilty entered at the trial in England, Mr. C. stated that it was by advice of counsel, as a successful defence under the plea of kleptomania would have necessitated the immediate commitment of his wife to an asylum for the insane, and the physicians whom he consulted were of the opinion that this would tend to aggravate rather than relieve her mental disorder.

The facts given above are sufficient to show the main points upon which Dr. Mitchell has based his analysis of the mental phenomena of this case, with which it is almost superfluous to state that we are in complete concurrence.

The following extracts are taken from Dr. Mitchell's opinion:

"January 20, 1897.—I have carefully examined Mrs. C., and have considered the papers which bear upon her case. I have also had a long talk with her, with her husband, with the physician and surgeon who have had her in more immediate charge, and I have read the report of the English experts; also, I have had the advantage of reading the newspaper cuttings, giving the details of the trial, and I have read the Home Secretary's order for her release.

"It is clear to me that Mrs. C. has, for some time, been in the habit of taking objects of no use and of little or great value. It is known that for these thefts there was no excuse, as she has been reasonably supplied with money for a person in her condition of life.

"I do not believe that Mrs. C. had any clear notion of the nature of her acts, or of their consequences, and I am of opinion that very positive and long-neglected uterine and rectal disease had much to do with the disorder of mind from which she has suffered, and which is apt to be associated with hysterical conditions. * * * * *

"Had I been in England at the time of trial, I should not have agreed with the lawyer as

to her plea. In my opinion, she should have pleaded insanity, accepted the commitment to an insane asylum for two or three months, and been released therefrom. She is now under a stigma, from which it will be difficult to escape—that of having pleaded guilty. This involves long explanations; the plea of insanity would have involved none. * * *

“I think her hysterical, weak and unbalanced but not criminal. It is characteristic of her form of mental disorder that she should show no other obvious signs of insanity than the overwhelming tendency which belongs to her form of monomania.”

The surgical treatment of the case has already been described. The medical treatment consisted simply in rest, nourishment and massage.

The menses appeared on December 10th and ceased four days later, reappearing in due time, and again lasting four days. The flow seemed normal in character and quantity. The patient had left the hospital on December 28th, and the course of treatment above outlined was then continued for some three weeks at the home of her sister.

On January 25th she left Philadelphia for her home, apparently perfectly recovered physically and with these symptoms of mental improvement, that whereas when first seen she seemed rather to enjoy the excitement of the doctors' visits and questioning *paripassu* with her physical improvement there seemed to develop abashment, if not shame; and contrition for the acts was added to the regret for the trouble brought upon her husband,

which had previously seemed to be her only cause of grief.

To the purely scientific account of this case and in explanation of our departure from usual reserve, it seems proper to add that this full and frank report of a case easy to identify has been made with the concurrence, and, indeed, at the wish of the patient's husband. Although subjected in both the secular and medical press to harsh and unmerited criticism, he has by our advice refrained, as have we, from stating to the many newspaper men who have sought interviews the facts that amply justify him as well as the physicians who testified to the British Home Secretary concerning the patient's condition, and the friends who interested themselves in her and his behalf; and furnish a complete reply to the remarks attributed to the trial justice.

This communication, however, places the material facts upon record in a becoming manner, so that if necessity should arise they may be referred to for any proper purpose.

They seem to us more than sufficient to show how baseless and cruel were many of the comments upon the case and upon the plea of kleptomania that appeared in certain medical journals; and to suggest that even trial justices might do wisely in withholding opinions upon matters concerning which they are uninstructed or without knowledge of all the facts.

Finally acknowledgment should be made of the courteous deference to our wishes by the representatives of the press, upon explanation of the ethical reasons for withholding the information they sought.

THE DIPHTHERIA QUESTION AND THE BOARD OF HEALTH.

BY M. V. BALL, M.D., Philadelphia.

Just at present we believe there is considerable lack of co-operation between the members of the medical profession in Philadelphia

and the Board of Health. Just what personal reasons exist for this condition of affairs does not concern us, but that some concerted action

is necessary to bring the two into harmony seems evident. It is well known that when a physician is called to attend a patient suffering from some contagious disease, scarlatina, diphtheria, etc., the law obliges him to report the case to the Board of Health. If the patient remains at his home, a placard is placed on the door. The children, if any, are prevented from attending school, and if the inmates do not follow instructions or the manufacture of clothing is carried on in the house, a police quarantine is established. All of this is very disagreeable, and as it often happens affects very seriously the business interests of the patient's family. In the poorer quarters, too, individuals who are healthy but who inhabit portions of the infected house are made to suffer equally with the sick and made to suffer very severely in pocket.

Hence it is not unnatural that the placard should be held in great dread; and it is not altogether surprising that some physicians should fail to report such cases of disease whenever possible and gain a reputation for this failure to comply with the law, whereas others who conscientiously obey the rules are shunned and not consulted whenever a contagious disease occurs.

Physicians of apparently good repute have told me that they may forget to report a case of diphtheria unless the patient is about to die.

One physician, and a member of the County Medical Society too, not long ago criticised a fellow practitioner, before the patient, for reporting a case that the bacteriologic laboratory considered true diphtheria. The patient now regards the latter doctor as his enemy and will surely refuse to recommend him to others.

The Board of Health can do little in such matters since the way of escape for the physician is easy. He can claim that the individual did not, in his opinion, have the

disease to be reported, and there is an end of it.

We will not speak here of the general dissatisfaction with the work of the bacteriologic laboratory. Dr. Abbott has already introduced some much needed reforms, and it is hoped that more use will be made of the laboratory in the future. But unless every case of diphtheria is examined and placed under the same law, the physicians who take cultures will be at a disadvantage, since their cases will have to remain longer under observation, and longer in the house than those who fail to make use of the test. It should be a rule of the Department not to allow any placard to be removed until the laboratory report proves the absence of bacilli, whether the physician in attendance ordered cultures or not.

When poor families are quarantined some material assistance should be rendered them by the city, although whenever possible the patient should be sent to the Municipal Hospital.

Some discussion of this question of public health seems to me necessary in order that there shall be more co operation on the part of physicians with the city authorities, and if the latter are in fault it is our duty to arouse public sentiment so as to bring about a change.

In the Laboratories

Foreign Bodies in the Eye Located by Roentgen Rays.—In a recent discussion (*Journal of the American Medical Association*, Jan. 24, 1897) the statement was made that thus far it had been impossible to locate foreign bodies in the eye in the living subject by means of Roentgen-ray examinations. At the laboratory of the Philadelphia Polyclinic, Dr. M. J. Stern, by an original method, the result of long experimentation upon the cadaver and the living subject, has succeeded in half a dozen cases in demon-

strating foreign bodies in the eye, undiscoverable by other methods, and which have been afterward successfully cut down upon and removed by the ophthalmologists. The first instance of this kind was in a patient of Dr. Hansell's and the latter reported the case to the section on Ophthalmology of the College of Physicians. Another was reported by Dr. Ring to the same body. The most recent case was in a patient sent from Altoona to Dr. de Schweinitz, at the Jefferson Hospital, and was peculiarly difficult. The eye had been cut down upon and the magnet applied with negative results three successive times. Nevertheless, Dr. Stern succeeded in getting a good skiagraph, showing the exact location of the foreign body, and at the operation indicated to Dr. de Schweinitz the place at which the latter cut, and extracted, by means of the magnet, a large piece of steel.

The Philadelphia Polyclinic Laboratory thus seems to be in advance of the world in this respect. Dr. Stern has described his method in a paper read before the Philadelphia County Medical Society, and which we gave in abstract in these columns. We trust soon to present an extended paper from him on this subject.

In the Clinics

Under the Editorial Charge of DR. W. OAKLEY HERMANCÉ.

PHOTOGRAPHS were exhibited by Professor Randall showing the large "*drop*" of the soft palate when viewed from behind, as compared to the very much foreshortened view of the same seen in the rhinoscopic mirror.

* *

IN a case of *acute tonsillitis* Dr. Eshner prescribed cinchonidin salicylate, 5 grains thrice daily; and a gargle of potassium chlorate, 5 grains to the dram of glycerin and water, to be further diluted with water and used four or five times a day.

DR. CANTRELL prescribed the following treatment for an *insect bite*: one dram of hydrochloric acid in a 4 ounce emulsion of acacia, to be applied every half hour until the disagreeable symptoms abate.

* *

DR. D. D. STEWART states that testing for the presence of the *milk-curdling ferments* in the removed gastric contents may give valuable information as to the secretory power of the stomach. A prompt reaction occurring in a test made with some of the filtrate removed at the height of digestion of a full meal suggests good secretory power on the part of the individual, and is an indication against the use of the digestive ferments. The milk-curdling ferment, although distinct from pepsin, is secreted in the same ratio as pepsin, and its presence in good quantities indicates at least very fair secretion of pepsin-hydrochloric acid. The test is made by the addition of 1 c.c. of the filtrate to 10 c.c. of unboiled milk. This is brought to a blood heat, and should be kept in a warm chamber or on a water bath at this temperature until solidification of the milk has occurred, which normally results in a very few moments—usually within five. Should solidification be markedly delayed, not occurring within ten minutes, this indicates deficiency in secretory power.

THE FIRST MEDICAL PEER.—The Queen of England has in the estimation of our British colleagues conferred a high honor upon the entire medical profession in elevating Joseph Lister to the Peerage. This distinguished surgeon was created a baronet in 1883. He now becomes the first medical peer of England.

GENEROUS DONATIONS.—The Baroness de Hirsch has decided to make a donation of 80,000 pounds to the Pasteur Institute of Paris, in memory of her late husband. She has also given 80,000 pounds to found a hospital on the Mediterranean coast for English tuberculous children.

THE PHILADELPHIA POLYCLINIC

Brief, practical, original articles, and news of general professional interest are solicited for publication in this journal. Contributions accepted will be paid for on publication, or, if desired, 250 reprints will be furnished in lieu of other compensation.

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PHILADELPHIA, FEBRUARY 6, 1897

MENTAL ABERRATION EXCITED BY UTERINE DISORDER.

In another column we give the report of a case read as part of a recent discussion before the College of Physicians of Philadelphia on the relation of nervous disorders in women to pelvic disease. The subject is one of considerable interest and we may hereafter quote other portions of the discussion. Not alone from *a priori* considerations, but from abundant evidence and universal experience, there can be no doubt that in certain women, especially in one whose nervous system is already strained, or merely of low resistance, the distress occasioned by disease of the important pelvic organs may produce decided symptoms of mental aberration. In addition there is the profound but ill understood reflex influence of these organs and their functions; and beyond this, in the two fields of modern research but just opened—the autointoxications, and the internal secretions—we catch glimpses of causes capable of producing far-reaching results.

It therefore seems justifiable to conclude that the alienation exhibited by the patient, whose case is reported in this issue, depended

largely upon the concomitant uterine and rectal lesions. This alone, however, would not account for the particular form taken by the mental disorder. It explains the aggravation of symptoms so that tendency became actual disease, but it does not account for tendency. Here there comes into consideration that aggregation of conditions we term the personal equation or idiosyncrasy. To adequately discuss this would lead into abstruse and difficult problems of psychology and heredity, which have no certain solution, and can only be determined as greater or lesser probabilities. Kleptomania is a recognized form of disease, in which, for no apparent reason other than to gratify the desire of taking the property of others, patients, usually women, steal things, secretly or openly, and without any sense of either guilt or shame. It may be manifested in connection with drug habits, or with or without other signs of mental disorder. Its exciting causes are the various causes of aberration in general, and may be obvious or entirely hidden.

What is its underlying cause? We believe it to be distinctly a disease of atavism; an evidence of reversion in mental and moral processes to a more primitive condition in the history of the race; just as we sometimes see such reversions in physical functions and structure as, for instance, in gout and akromegaly. Among primitive men, as among many savage tribes to-day, and even among races as far advanced in culture as the Spartans of history, successful theft was a virtue rather than a fault. Only as the Mosaic Code, and similar moral teachings have impressed themselves upon the consciousness of civilized men, has it become generally recognized that one must not steal, at least by such coarse methods as actual taking of others' property without their consent—the more refined methods of the Board of Trade and the Stock Exchange apparently not disqualifying one

from becoming and remaining a pillar of the State or of the Church.

We have elsewhere expressed the view, that the line of progress, alike in social, moral, mental and physical development, is the line of inhibition. The highly-developed State is that which at first unwillingly, then willingly, at last automatically, unconsciously, spontaneously, refrains from aggression upon its neighbors. The highly-developed society is that in which individuals naturally follow Hillel's rule, "Do not to others what is hateful to thyself." Morally, the highly-developed man is he in whom the desire to aggress upon others has become completely inhibited. Physically, the most highly-developed organism, system of organs, organ, tissue, is that in which the taxic power has the most complete control over the automatic impulses.

All of us inherit from our primitive progenitors the tendency to take to ourselves that which pleases us, without consideration of property rights. In normal and properly-trained individuals, on the one hand, that tendency is minimized by centuries of restraint, and on the other hand, the inhibitive power of education and environment is strongly developed. The inhibition may be, however, and often is, overcome by desire, even in normal individuals, the strength and character of the necessary temptation varying even in the same individual with his environment and with the development, progressive or retrogressive, of his character. In certain abnormal individuals, however, the tendency is strong and the inhibition weak. These are potentially or actually criminals, or kleptomaniacs; the kleptomaniac occupying as it were a position midway between the "born criminal" or "criminal degenerate" and the normal individual who consciously yields to the temptation of thieving. When potentiality is, by circumstances, made actuality, the exciting causes, the general characteristics

of the individual, the entire series of concomitants of the act, must be considered in determining whether we are dealing with crime, of whatever character, or mental aberration. Without following the school that makes all crime disease, it is quite easy to see that, in such cases as the one under consideration, the temperament of the patient, the injudicious life she had led, the want of motive for criminal act, and the presence of a *vera causa* for mental disease, render the diagnosis of kleptomania the only possible one.

With the removal of the pelvic disease, with the rude awakening shock of recent experience, and with judicious management of the patient's life on lines readily suggested, there should be no occasion to dread relapse.

S. S. C.

Editorial Notes

Tuberculosis Declared Infectious and Communicable.—The New York Board of Health has passed an amendment to the Sanitary Code, declaring pulmonary tuberculosis to be an infectious and communicable disease, and requiring physicians to report all cases coming under their observation.

The New York Academy of Medicine celebrated on January 29th the fifteenth anniversary of its organization. Addresses were made by its President, Dr. Joseph D. Bryant, by Dr. Samuel S. Purpose and Dr. Lewis A. Sayre, two of the founders, by Dr. Abram Jacobi, a former President, and by President Cleveland.

BOOKS RECEIVED.

ANOMALIES AND CURIOSITIES OF MEDICINE: Being an Encyclopedic Collection of Rare and Extraordinary Cases, and of the Most Striking Instances of Abnormality in All Branches of Medicine and Surgery, derived from an Exhaustive Research of Medical Literature from its Origin to the Present Day, Abstracted, Classified, Annotated, and Indexed. By George M. Gould, A.M., M.D., and Walter L. Pyle, S.M., M.D. 8vo, 968 pages, with 295 Illustrations in the Text, and 12 Half-Tone and Colored Plates. Philadelphia: W. B. Saunders. 1897.

EXTRACTS

FROM THE

Fourteenth Annual Announcement of the Philadelphia Polyclinic and College for Graduates in Medicine.

GENERAL INFORMATION.

The Philadelphia Polyclinic and College for Graduates in Medicine was organized in December, 1882, and opened for clinical work and teaching early in 1883. It has steadily extended its facilities and opportunities for practical work, until now it has entered upon its fifteenth year with a corps of fifty professors, lecturers and adjunct professors and thirty-one competent instructors; one of the best hospital buildings devoted to post-graduate instruction in the world, and a laboratory building completely equipped from the principal manufactories of this country and Europe, and including a *Röntgen-Ray Department*, the work of which is unexcelled; while in addition to its own dispensary services aggregating 18,000 new cases per annum, the clinical advantages of all the great hospitals in Philadelphia are available by its pupils. Although its classes continue to increase, it still makes a feature of offering the *direct personal instruction* and full opportunities for actual clinical work that have been so highly valued by its former pupils.

The Polyclinic opens to all graduates in medicine its facilities for acquiring a practical acquaintance with the clinical aspects of disease and the diagnostic procedures and methods of treatment in general medicine and surgery that were formerly attainable only by those who obtained positions as resident physicians in the larger hospitals; and in the special branches, like gynecology and diseases of the eye, ear, nose and throat, the opportunities which it offers have never before been generally attainable, and are unsurpassed anywhere in this country or in Europe. The members of its limited classes *personally examine* cases of disease and employ the instruments of precision in diagnosis and treatment, participating in the actual work of the clinic and the laboratory.

To the facilities heretofore offered at this school have been recently added many improvements tending to its greater usefulness. Everything has been done with a view to aid in imparting knowledge to the pupil, and for his increased personal comfort. An amphitheatre, perfect in construction and equipment, with necessary sterilizing, etherizing, recovery and instrument rooms, has been built, as have additional surgical, eye, ear, medical and genito-urinary dispensary quarters, children's and obstetrical wards, a delivery room, private rooms, and quarters for the nurses. The laboratory building is one of the best in the country, and is completely equipped with all the appliances of the great modern laboratories.

Economy of Time.—Courses may begin at any date, and the hours for instruction in the various departments have been arranged with a view to enabling the pupil, whether he takes a single branch or many, to make the fullest possible use of his time. The total amount of work offered is many times that which can be undertaken by any one person at one time; so that there is much room for choice to meet the needs of each as to available time and desired subjects.

The **General Schedule** (pp. 17-19) shows 110 hours of work daily at the Polyclinic itself, and **Special Schedules** aggregating many times this amount will be found embodied in this pamphlet.

FEES.

The following fees are for tickets issued during the period covered by the regular winter session, from October 1st to June 15th.

Tickets are generally issued for courses of six consecutive weeks. When the physician-pupil can attend but one day in the week, the period is extended to three months. If for good cause a pupil is called home from his teaching, he is credited with the unexpired period, and this may be taken at any future time.

For the Clinical Courses, tickets are issued as desired—(1) for the teaching of any individual professor; or, (2) for all the teaching in any one branch, as Medicine, Surgery, Ophthalmology, Gynecology, etc.; or, (3) for a combination of two or more branches, as General and Orthopedic Surgery, Diseases of the Chest and General Medicine, Obstetrics and Diseases of Children, etc.; or, (4) for all the Clinical Courses—a general ticket.

For the teaching of any one Professor, or for all the teaching in branches in which there is but one Professor, the fee is \$15.00. The fees for separate and combination tickets are shown in the following table:

FEES FOR THE CLINICAL COURSES.

	For Six Weeks.	For Twelve Weeks.
Clinical Medicine [and Therapeutics] (any Professor)	\$15 00	\$25 00
Clinical Medicine [and Therapeutics] (all teachers)	25 00	45 00
Diseases of the Chest (either Professor)	15 00	25 00
Diseases of the Chest (all teachers)	25 00	45 00
Diseases of the Stomach	15 00	25 00
Clinical Medicine, Therapeutics, Diseases of the Chest and Diseases of the Stomach (all teachers)	40 00	70 00
Clinical Surgery (either Professor)	15 00	25 00
Surgery, General and Orthopedic (all Professors)	35 00	60 00
Diseases of the Rectum	15 00	25 00
Genito-Urinary Surgery (any Professor)	15 00	25 00
Genito-Urinary Surgery (all teachers)	35 00	60 00
Diseases of Women (either Professor)	15 00	25 00
Diseases of Women (all teachers)	35 00	60 00
Obstetrics	15 00	25 00
Diseases of Children	15 00	25 00
Obstetrics and Diseases of Children	25 00	45 00
Diseases of the Ear (either Professor)	15 00	25 00
Diseases of the Ear (entire teaching)	30 00	50 00
Diseases of the Eye (any Professor)	15 00	25 00
Diseases of the Eye (all teachers)	35 00	60 00
Diseases of the Throat and Nose (any Professor)	15 00	25 00
Diseases of the Throat and Nose (entire teaching)	35 00	60 00
Diseases of the Skin	15 00	25 00
Diseases of the Mind and Nervous System (any Professor)	15 00	25 00
Diseases of the Mind and Nervous System (all teaching)	25 00	45 00
Diseases of the Mind and Nervous System (one Professor), and Electro-Therapeutics	20 00	35 00
Electro-Therapeutics only	10 00	15 00
Defects of Speech	15 00	25 00

A General Ticket entitling the student to attend the entire work and instruction in all the clinical departments, as given in the general and special schedules, is issued for one week at \$20, for six weeks at \$90, for three months at \$150, and for one year at \$350. In all cases an extra fee is charged for any laboratory course. The Faculty would strongly urge those contemplating taking more than one course, to take a general ticket. After long experience it has been abundantly demonstrated that whether a pupil-physician has or has not predilection for the study of the specialties, the most economical and satisfactory plan is that on which the general ticket is issued. In this way he can at a minimum cost map out a day's full work in those fields that are most congenial to his tastes.

The Laboratory Courses are not included in the general ticket, and no reduction is made in fees for such courses as are given during the summer term.

FEES FOR THE LABORATORY COURSES.

Anatomy	\$25 00
Operative Surgery on the Cadaver	30 00
Operative Gynecology	50 00
Fracture Dressing and Bandaging	15 00
One Part of Dissecting Material	5 00
Toxicology	15 00
Water Analysis (sanitary)	15 00
Urinary Analysis	10 00
Bacteriology	15 00
Pathology	15 00

Those desiring to pursue special work, or original research on some particular line, in the Chemical, Pathological or Bacteriological Laboratories, can make satisfactory arrangements.

For additional information address,

MAX J. STERN, M.D., *Secretary*,

Philadelphia Polyclinic and College for Graduates in Medicine,

Philadelphia, Pa.

or

MR. WM. S. LEFFMAN, *Clerk*.

DETAILS OF DEPARTMENTS.

CLINICAL MEDICINE, APPLIED THERAPEUTICS, PHYSICAL DIAGNOSIS AND DISEASES OF THE CHEST.

PROFESSORS.—THOS. J. MAYS, M.D.; SOLOMON SOLIS-COHEN, M.D.; J. P. CROZER GRIFFITH, M.D.; AUGUSTUS A. ESHNER, M.D.; JUDSON DALAND, M.D.

ADJUNCT PROFESSORS.—A. EDGAR TUSSEY, M.D.; DAVID RIESMAN, M.D.

INSTRUCTORS.—HERBERT B. CARPENTER, M.D.; TRUMAN AUGÉ, M.D.

CLINICAL ASSISTANTS.—CHARLES HERWISCH, M.D.; ALEX. DAVISSON, M.D.; MAURICE A. BUNCE, M.D.; WILLIAM J. GILLESPIE, M.D.; WILMON W. LEACH, M.D.; EMILY C. UPHAM, M.D.; JOHN McLEAN, M.D.; MARY B. GARVIN, M.D.; JOSEPH J. SMITH, M.D.; CLARA REIMEL, M.D.; FRANK MASSEY, M.D.

In each of these allied departments the entire field of clinical medicine is covered; but certain subjects receive more prominent and detailed attention in one clinic, other subjects in another clinic. The pupil is advised to attend all of them. The dispensary material is ample, and can be supplemented by the wards of the Polyclinic Hospital and by the services of the professors at the Rush, Philadelphia, Jewish, Children's and Howard Hospitals. Physical diagnosis is carefully taught, and the relation of physical signs to symptoms and pathological changes pointed out and illustrated. The most recent methods of "clinical diagnosis," including the use of the sphygmograph and the examination of the blood, sputum, stomach contents and urine are taught to the class; and pupils desiring additional opportunities for thorough study of any of these subjects may arrange for special courses.

Professors Mays, Cohen and Griffith are on the staff of the Rush Hospital, and the various special methods in the treatment of pulmonary consumption, the rest treatment, pneumatic treatment, treatment by overfeeding, etc., are illustrated in their services both there and at the Polyclinic Hospital.

Arrangements for a thorough course in dietetics, including the preparation of food for the sick, are being perfected.

DISEASES OF THE STOMACH AND INTESTINE.

PROFESSOR.—D. D. STEWART, M.D.

CLINICAL ASSISTANT.—C. P. THOMAS, M.D.

In this department suitable clinical material of the hospital is utilized for practical instruction in the diagnosis and treatment of functional and organic diseases of the stomach and intestine, by modern methods. The pupils are severally taught the proper employment of the stomach tube and other appliances that experience has shown are of utility for local diagnostic and therapeutic purposes. Special attention is paid to the most practical methods of examination of the gastric contents for hydrochloric acid and the various ferments, and to the application of the knowledge thus gained in the treatment of diseased conditions.

DISEASES OF WOMEN.

PROFESSORS.—B. F. BAER, M.D.; J. M. BALDY, M.D.; H. A. SLOCUM, M.D.

ADJUNCT PROFESSOR.—FRANK W. TALLEY, M.D.

LECTURER.—CHARLES P. NOBLE, M.D.

INSTRUCTORS.—HOMER C. BLOOM, M.D.; THEO. ERCK, M.D.; W. A. N. DORLAND, M.D.

CLINICAL ASSISTANTS.—ELIZABETH M. CLARK, M.D.; W. OAKLEY HERMANCÉ, M.D.

The course on this subject offers better facilities for the practical study of gynecology than can be obtained elsewhere. Direct personal instruction is possible from the large clinical

resources of the Out-Patient Department as well as from the patients in the hospital wards. The course is thoroughly practical. Patients from the dispensaries are presented for examination, diagnosis and treatment under the direct personal supervision of the professors. In the new amphitheatre the various abdominal and plastic operations are performed before the class.

Prof. Baer holds two clinics weekly at the Polyclinic Hospital. The students in attendance have the advantage of numerous other operations at other and convenient hours. Prof. Baldy holds two clinics each week at the Polyclinic Hospital. His operations at the Gynecean Hospital and other institutions with which he is connected are open to attendance by the pupils in this department.

Prof. Slocum gives especial attention during two weekly clinics to minor gynecological procedures. He operates at the Polyclinic Hospital at convenient times. Dr. C. P. Noble holds clinics on Mondays and Thursdays at the Kensington Hospital for Women. Didactic instruction is given throughout the whole course, following as clearly as possible the clinical cases as they are presented and operated upon.

SPECIAL COURSE IN OPERATIVE GYNECOLOGY.

The special course of the operations in Gynecology may be entered at any time. Pupils availing themselves of this course perform the operations in turn upon the cadaver, under the direct supervision of one of the professors of the department. The course comprises the operations for lacerated perineum, complete and incomplete, including anterior colporrhaphy; vesico- and recto-vaginal fistula; trachelorrhaphy; amputation of the cervix; dilatation and curettage; oöphorectomy; hysterectomy; hysterorrhaphy, and various other operations for displacements, as well as all the abdominal operations upon the female pelvic organs.

OBSTETRICS AND DISEASES OF INFANCY.

PROFESSOR.—EDWARD P. DAVIS, M.D.

ADJUNCT PROFESSOR.—WM. H. WELLS, M.D.

ASSISTANT.—WM. O. XANDER, M.D.

This department affords opportunities for the practical study of methods of diagnosis, including the measurement of the pelvis, the diagnosis of the contracted pelvis, auscultation and palpation. Operative procedures necessary in cases of difficult labor will be illustrated upon the manikin. Modern methods of treatment in the prevention of septicemia, and modern instruments for craniotomy and other obstetric operations will also be studied. In addition, a daily clinical service is held at the Polyclinic Hospital, from which material will be drawn to illustrate the course. Modern methods of infant feeding will be demonstrated, and recent researches in the care of infants will be fully illustrated.

Prof. Davis will give clinical lectures on Wednesday mornings in the months of January, February and March at the Philadelphia Hospital, Thirty-fourth and Pine Streets. During June, July, August and September, pupils may attend the Children's Clinic, held daily at the Howard Hospital.

DISEASES OF CHILDREN.

PROFESSOR.—J. MADISON TAYLOR, M.D.

INSTRUCTOR.—JAS. HERBERT MCKEE, M.D.

CLINICAL ASSISTANT.—A. KOENIG, M.D.

Professor Taylor will give a clinic at the Polyclinic on Mondays and Thursdays at 10 A.M., also at the Children's Hospital on days when not engaged at the Polyclinic, at 11 A.M. He also utilizes for the demonstration of nervous diseases of children his services at the Howard Hospital on Tuesdays at 11 A.M., and at the Orthopedic Hospital and Infirmary for Nervous Diseases on Fridays at 1 o'clock. Classes can also be arranged to visit the Elwyn Home and the Vineland School for Feeble-minded Children.

The service of Prof. Griffith at the Children's Hospital affords additional opportunities for the study of the diseases of childhood. The clinic at the Polyclinic is a daily one, the instructors being in charge on days when Prof. Taylor is in attendance at the Children's Hospital.

A new ward for children has been added to the Polyclinic Hospital, which will doubtlessly shortly furnish a rich field for study to the students in this department.

GENITO-URINARY SURGERY.

PROFESSORS.—THOMAS R. NEILSON, M.D.; EDWARD MARTIN, M.D.

ADJUNCT PROFESSOR.—HILARY M. CHRISTIAN, M.D.

INSTRUCTOR.—JOHN LINDSAY, M.D.

CLINICAL ASSISTANTS.—ELLISTON T. MORRIS, M.D.; H. M. MILLER, M.D.; HENRY S. KIERSTED, M.D.; W. B. SMALL, M.D.; JAMES P. HUTCHINSON, M.D.

The instruction given in this department affords the pupil an opportunity of familiarizing himself with the diagnosis, treatment and pathology of these diseases by direct observation and practice. The macroscopic and microscopic examination of the urine, the exploration of the urethra with sounds, bougies and the urethroscope, the systematic examination of the bladder, the catheterization of the ureters, will be carefully explained and demonstrated. The technique of injections, irrigations and instillations will be shown, and a didactic course illustrated by clinical cases, as far as possible, will be given, covering surgical diseases of the kidneys.

The members of the class will have an opportunity of performing the major and minor operations properly classed under this subject, under the direct supervision of the professor in charge. The general surgical service of Professor Neilson at the Episcopal Hospital includes many examples of genito-urinary surgery, as well as rich operating material. Professor Martin holds his extra-mural clinics at the University Hospital, from 12 to 1, throughout the year; at the Howard Hospital (surgical), from 10 to 12, from February to August; at the St Agnes Hospital (surgical), from 12 to 1, during May, June and July, and at the Philadelphia Hospital, from 1 to 2, during June and July.

DISEASES OF THE SKIN.

PROFESSOR.—J. ABBOTT CANTRELL, M.D.

INSTRUCTOR.—JAY F. SCHAMBERG, M.D.

CLINICAL ASSISTANT.—D. C. R. MILLER, M.D.

The department of diseases of the skin is thoroughly equipped for the practical demonstration of diseases directly upon the patient, by which, with the assistance rendered by photographs and drawings, the pupil is made thoroughly acquainted with each disease in all its manifestations. It shall be the pleasure of the professor, the instructor and the assistant to allow ample time for the study of each case and to render all assistance, thereby giving the pupil time to familiarize himself with everything important. Practical demonstrations are given of the manner of applying remedies, and patients return often enough to enable the pupil to observe the effects of treatment. The uses and effects of both old and new, internal and external remedies are matters of special study. The frequent use of the microscope is resorted to in the examination of the blood, urine, etc.

In addition to the abundance of material at the Polyclinic Hospital, pupils will have the opportunity of attending the semi-weekly clinics at the Frederick Douglass Memorial Hospital, which is within a few minutes' walk of the Polyclinic. These afford material for study of skin affections in the colored race. Pupils will also be admitted to the service of Professor Cantrell at the Philadelphia Hospital, which, with its beds, furnishes a rich field for dermatological observation.

DEFECTS OF SPEECH.

LECTURER.—G. HUDSON MAKUEN, M.D.

This most recent department of the college and hospital is believed to be the first of its kind anywhere. Cases of defective speech of whatever kind and from whatever condition are received and carefully examined. If the cause of the defect is found to be any malformation or disease of the vocal or speech organs, the patient is referred to the appropriate department for local treatment; but if the cause of the defect is found to be a disease coming under the domain of neurology, the patient is referred to that department. In other cases and sometimes additionally in cases referred to the department of the throat and nose or the department of nervous diseases, a systematic course of training in voice and articulation is instituted by the lecturer and specially qualified assistants. The attendance at this clinic is very large and the results seem to be well worthy of the attention of physicians.

PATHOLOGY.

ADJUNCT PROFESSOR.—ALOYSIUS O. J. KELLY, M.D.

The Pathological Laboratory has been thoroughly equipped with the best of modern apparatus, is excellently lighted and is arranged throughout with an eye to the easiest and most satisfactory accomplishment of pathological technique.

Two courses are given. The one—a short course on *Clinical Pathology*—consists of the microscopic study of the urine, and demonstrations of the various methods of examining and staining the blood and spectrum. The other—a longer course on *General and Special Pathology*—consists of the practical application of the different methods of hardening, imbedding, cutting, staining and mounting tissues, together with occasional didactic lectures. Demonstrations of gross pathological lesions will also be given, and students of this department will be permitted to attend whatever autopsies are held in the Hospital.

Those who desire to do special work will have the opportunity of studying the methods of staining the tissues of the central nervous system, and students who have already had laboratory instruction and are competent to undertake experimental work will be offered opportunities for prosecuting original researches upon such subjects selected by them as may meet with the approval of the professor.

The laboratory will be open for several hours daily, and at such times the professor or his assistants will be in attendance.

CLINICAL CHEMISTRY AND HYGIENE (including Bacteriology.)

PROFESSOR.—HENRY LEFFMANN, M.D.

The regular course in this department includes the usual analytic examinations of urine and gastric juice, together with some of the more important tests for poisons. Especial attention will be given to examinations of urine for albumin and sugar.

Facilities are afforded for more advanced instruction in clinical chemistry, also for work in sanitary chemistry (analysis of water, milk, and milk products, air and food) and toxicology.

Bacteriology.

ADJUNCT PROFESSOR.—HERBERT D. PEASE, M.D.

This laboratory is well equipped with the requisites for bacteriologic work. The methods of preparing culture-media are demonstrated, the growth of the various micro-organisms is studied, and opportunities afforded the pupil to perfect himself in manipulations. Particular attention is paid to the study of diphtheria, with reference to its bacterial diagnosis. The rich clinical field of the hospital is drawn upon, and students can make cultures of the various pathogenic organisms directly from cases in the wards and dispensaries.

Arrangements can be made for those desiring to pursue special lines of investigation.

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FEBRUARY 13, 1897

HYSTERIC RAPID BREATHING (HYSTERIC TACHYPNEA), WITH THE REPORT OF TWO CASES IN CHILDREN.

BY DAVID RIESMAN, M.D.

Adjunct Professor of Clinical Medicine and Therapeutics in the Philadelphia Polyclinic.

DISTURBANCES of the respiratory function as manifestations of hysteria are not common, yet quite a large variety have been described, cough, hiccough, laryngeal spasm, and rapid breathing being the most important. Any one of these may constitute the dominant symptom, other signs of hysteria being either but slightly marked or, rarely, entirely absent. When the latter is the case, the determination of the true nature of the condition may be extremely difficult.

Abnormal slowness of respiration is not infrequent in hysteria, but is generally a subordinate phenomenon occurring in states of trance or catalepsy. I have also seen a case of very deep, sighing respiration in a girl of 12 years. The respirations were twenty to the minute, and became normal when her attention was diverted. She stated that her mother, whom I did not see, however, breathed in the same manner.

Regarding excessive rapidity of breathing, with which we are at present principally concerned, the first careful description of it was given by S. Weir Mitchell in 1883. In 1893¹ he published two new cases and gave in abstract those recorded in literature up to that time. The condition is now well known and has found entrance into the text-books.

The breathing in a typical case is of the upper costal type and is unaccompanied by

effort; the diaphragm moves scarcely at all; the respiration-rate varies from 70 to 100 per minute, or is even higher—in one of Mitchell's cases it was 150, and was said to have been 180. Emotion increases the frequency; in most cases the rate drops to normal during sleep. The pulse is usually not accelerated unless quickened under the influence of excitement.

That the rapid breathing is not a voluntary acceleration was shown by Mitchell by means of graphic records. When the respirations of a healthy person breathing very rapidly were recorded, the tracing was found to be irregular and quite unlike that of hysteric rapid breathing, which was rhythmic and regular.

My own cases were those of two children, one aged 9 years, who also had chorea minor, and one aged 13, in whom the respiratory disturbance was the only abnormality.

CASE I. *Case of chorea minor with rapid breathing.*—M. F., a boy of 9 years, is one of seven children; the family history is negative; the other children are well. He had measles at 2, and his first attack of chorea at 4 years—it affected the right hand and lasted six weeks. The second attack occurred 16 months ago; the present one began two months previously in the right hand. The movements are slight, and cease entirely during sleep. The submaxillary and posterior cervical glands are enlarged. The heart is rapid and the apex beat diffuse; unfortun-

¹ Mitchell, *Am. Jour. of the Med. Sc.*, March, 1893.

ately, I have no record of the rate. There is no murmur. The respirations are 64 to the minute, noiseless, rhythmic, and unassociated with effort. The bowels are regular; there are two minute ulcers on the tip of the tongue.

CASE II.—*Rapid breathing rendered noisy by sucking inspiration; at intervals a movement of swallowing.*—F. S., a boy of 13 years, is the second of eight children, two of whom are dead. The family history is negative. He has had the diseases of childhood, including a mild attack of typhoid fever. For about two months he has worked in a market, often lifting heavy weights. One evening he came home complaining of a choking sensation; he was breathing rapidly, but was not cyanotic. Hot drinks were administered, and the trouble disappeared entirely. For two weeks he was well, and then the symptom returned, and has persisted up to the present time (March, 1896). An operation for phimosi relieved the condition slightly, but since being startled from sleep a few nights ago, it has been worse than before. At present the respirations are 81 to the minute, inspiration is noisy because the air is sucked in through the teeth. The breathing is perfectly rhythmic, but is interrupted once in every 14 or 15 respirations by an act of swallowing. There is slight sucking in of the supraclavicular spaces and the suprasternal notch. Auscultation reveals nothing save a harsh inspiratory murmur. During play, sleep, and work the respirations are natural.

The boy is very excitable, his face is pale, and his whole appearance speaks of want and neglect. On the right lower lid there is a sty.

Though hysteria is quite common in childhood,¹ hysteric rapid breathing is very rare, and LLOYD (*American Text-Book of Diseases of Children*), in describing the symptom, only refers to the case of an adult.

In the first boy chorea was also present, but the rapid breathing cannot be considered part of that disease—it had nothing of the irregular, jerky character of choreic movements. The second case was very clear: the cessation of the symptom during work, sleep, and play, leaves no doubt as to its nature.

How the rapid breathing is brought about, is not easily explained—it is probably a vagus-neurosis, in a sense analogous to tachycardia. For this reason, and also because there is no real difficulty in breathing, I have used the phrase "hysteric tachypnea," instead of the one generally employed, namely, hysteric dyspnea.

¹ Clopatt's Statistics (quoted by Lloyd: *American Text-Book of Diseases of Children*) comprise 272 cases below the age of 15; of these, 97, or more than one-third, were under 10.

A CASE OF RECURRENT LUPUS ERYTHEMATOSUS.

BY J. ABBOTT CANTRELL, M.D.

Professor of Diseases of the Skin in the Philadelphia Polyclinic and College for Graduates in Medicine, Dermatologist to the Philadelphia and Frederick Douglass Memorial Hospitals.

DURING the earlier portion of the year 1891 there appeared at the Polyclinic Dispensary service a female, about 50 years of age, who presented what subsequently proved a decidedly interesting cutaneous manifestation. The woman was born in one of the lower counties of Ireland, but at a very early age emigrated to this country with her parents, who settled in Philadelphia. The family history so far back as was obtainable did not present a similar occurrence, nor did the immediate offspring of this individual differ in

the leastwise from normal. In fact, those members of the present household whom I have seen, have shown a decidedly robust as well as ruddy appearance. There have been borne in all nine children by this woman, and all were living at the time of her first visit to the clinic. The condition which was present upon the right side of the face at her first visit was diagnosticated as a form of eczema by one of the assistants, and it was not until she had paid several visits to the clinic that she came under my observation.

The notes taken when first examined by me were as follows:—The disease is situated upon the right side of the face, with migrating patches upon the corresponding portion of the hairy scalp. It is of several months' duration, having within the past month shown decided progress not in extension of surface involvement but in degree of inflammation of the diseased areas. The affected portion resembles very closely that condition usually found in an erythemato-squamous eczema, with its characteristic bluish red color, upon the summit of which there can be seen the minute branny-like dried scales. Closer examination reveals the fact that the patches of disease are circumscribed and raised distinctly above the surrounding healthy integument. This condition can be distinctly proved by passing the finger over the affected areas. At this visit, according to the woman's statement, the degree of inflammation is much higher than it was yesterday, and the part feels as if the skin were tightly drawn over the region. At a glance the affected part looks as if there was some exudation, owing possibly to the glossy and shining appearance of certain patches of the eruption, but upon passing the finger over these patches this supposed condition is not apparent. The affected areas do not show any sign of ulceration, either past or present.

Ichthyol in watery solution in the strength of thirty grains to the ounce was advised as a constant dressing for the following forty-eight hours, at the expiration of which time she was ordered to return.

At the following visit the condition had changed for the better, but the same opinion as advanced by the assistant was still held.

At a still later visit it was noted that a decided change had taken place in the eruption, and during a period of four years in which she was under constant observation she appeared at the clinic at least four times, presenting similar attacks occupying always some portion of the face or head, and as they all showed exactly the same appearance the record of one attack will be understood to describe the peculiarity of the condition.

At these subsequent visits, the record of one of which I include, the affected area was always some portion of the face, either the cheek or the ear or nose, and alike some

part of the hairy scalp, but usually affecting the right side of the head.

At one of these visits the woman came into the clinic room with feelings of great alarm, stating that the erysipelas from which she was suffering began two days previously, and had continuously invaded more surface. Upon looking at the affected area I was rather loath to make a positive diagnosis at that visit, so closely did it resemble erysipelas; but knowing that the woman had previously shown an erythematous lupus at the site of the present eruption, I withheld an opinion until a few days later. At the time of the great alarm of the woman the parts invaded were the right side of the face at and surrounding the ear, but only affecting a slight portion of the area behind that organ and extending in front almost to the median line of the anterior portion of the face, not attacking the nose nor spreading close to the eye, but occupying a portion of the forehead and anterior hairy scalp, as well as slightly above the ear. To the touch the parts were positively hot, but did not show that characteristic hardness so common in erysipelas. The body temperature registered 102° F. A few days later the erysipelas like condition subsided under the use of a watery solution of ichthyol, and then the parts presented the following appearance: The disease was noted upon the above mentioned sites, showing a dull red color with some slight tendency to fine or branny scaling, which scales rubbed between the fingers gave the impression of containing oily material. The surface of the skin over the affected areas, except that occupying the hairy scalp, gave a sort of unctuous feeling, that upon the scalp felt like passing the finger over an erythematous eczema. Upon the cheek and the sides of the face there were numerous lesions scattered at irregular intervals, showing the peculiar atrophic appearance usually observed in the center of lupus erythematous patches. The hair over that portion occupying the scalp had fallen out, leaving a surface with a dull-red color, but showing no cicatricial tissue. After the disappearance of this condition, which took several months under the most judicious measures (salicylic acid in ointment form, in the strength of twenty to thirty grains to the ounce of ointment of zinc oxid), the parts returned to the normal,

and did not in the least show that there ever had been a cutaneous eruption at the former site. The hair likewise returned to the normal quantity. At each attack the woman came into the clinic with the same feelings of alarm, so intense were the symptoms present, and under the same treatment she became entirely well after several months of persistent application.

I wish to record this case as showing that often we may find instances of acute attacks of erythematous lupus, wherein the symptoms are exceedingly severe and yet the corresponding phenomena are absent after the disappearance of the main condition. Unfortunately the woman disappeared, and it has

been impossible for me to trace her since her last visit, something like a year and a half ago, consequently I am unable to state the final outcome of the case. Kaposi, who called attention to these erysipelas-like conditions of this disease, records several instances in which the body temperature reached 104° F. with coma and such typhoid symptoms that a mortality of about 50 per cent. was approached. In addition to the above mentioned phenomena, we may often find that tuberculosis may intervene, or that uterine or other complications may arise which terminate in death.

Society Proceedings

COLLEGE OF PHYSICIANS OF PHILADELPHIA.

Section on Ophthalmology.

NOVEMBER 17, 1896.

DR. J. M. DA COSTA in the chair.

DR. G. E. DE SCHWEINITZ presented a case of

UNILATERAL ALBUMINURIC RETINITIS.

After a brief review of the literature of unilateral albuminuric retinitis, during which reference was made to 15 cases, Dr. de Schweinitz reported two examples that had come under his care, both in colored men. In the one instance clinical examination indicated chronic nephritis, and there was unilateral neuro-retinitis. The patient, however, was not seen again and his subsequent history was unknown. In the second case the patient had been under observation for five months, and had all the symptoms of chronic interstitial nephritis with unilateral (right side) retinal lesions. Water colors by Miss Washington, illustrating the condition in two stages, were presented, indicating that the primary lesion had probably been a thrombosis in the lower nasal vein with secondary involvement of the disk and retina. Dr. de Schweinitz agreed with Knies that unilateral albuminuric retinitis is not so great a rarity as some text-books would lead us to believe. A certain percentage of cases main-

tain monocular retinal lesions until death; in another the unilateral character of the affection is maintained for a considerable portion of time, but ultimately becomes bilateral. Dr. de Schweinitz suggested that an interesting clinical observation in these unilateral cases would result from catheterization of the ureters and separate analysis of the urine from each kidney. His patient had declined to submit to this procedure.

DISCUSSION.

DR. J. M. DA COSTA: Has there been microscopic examination in cases of this character? This question is suggested because it is uncommon to have one kidney alone affected.

DR. DE SCHWEINITZ: So far as I am aware, but one post-mortem is recorded, namely, Yvert's case. The right kidney alone, in a state of parenchymatous nephritis, was present, but although Yvert is a French military surgeon and reports with characteristic exactness, if my memory serves me correctly, there was no microscopic examination, but only a description of the coarse pathologic anatomy of the specimen. Cheatham is often credited

with an autopsy, especially in foreign abstracts, but his report contains clinical data only, and the autopsy referred to in his paper is the French case just described.

DR. WM. F. NORRIS: I should like Dr. Da Costa's opinion as to why one kidney, any more than one eye, should be the sole sufferer.

DR. DA COSTA: I suppose if I were to theorize I should explain it through the action of the sympathetic nerve, and assume it to be for the same reason that there is flush in pneumonia on that side of the cheek corresponding to the side of the affected lung. This is a very common clinical observation and is the only analogy that occurs to me. I know of nothing from actual observation that bears on this point.

DR. G. ORAM RING made a report of the
SUCCESSFUL REMOVAL OF A PIECE OF STEEL FROM
THE VITREOUS BY THE HIRSCHBERG MAGNET,
AND EXHIBITED THE PATIENT.

J. S., aged 28, was admitted to the wards of the Episcopal Hospital, June, 1896. Six hours previously a piece of steel from an anvil penetrated the right lower lid and the ocular coats, and was lodged in the nasal side of the anterior portion of the vitreous where its position could be distinctly outlined. The cornea, iris, and lens were uninjured. A minute bead of vitreous protruded from the wound in the sclera. The choroid was ruptured and retinal hemorrhage was profuse at the site of the injury, V. $\frac{2}{8}$. The following day, under antiseptics and cocaine anesthesia, an incision was made with a Graefe knife through the conjunctiva and sclera 6 mm. from the corneal border and opposite its lower third. While the edges were retracted by an assistant, the straight tip of a Hirschberg magnet was inserted. Upon withdrawal of the magnet, after its second introduction, a piece of steel 6 x 2 x 1 mm. was found clinging to it. No suture was used. Recovery was prompt and uneventful. A patch of atrophied choroid corresponding to the rupture can be seen through the now transparent vitreous. The vision has increased to $\frac{3}{8}$.

DR. M. W. ZIMMERMAN presented

A CASE OF FOREIGN BODY IN THE VITREOUS.

The patient, J. J., was wounded by the explosion of a copper dynamite cartridge

January 18, 1890. The fragment entered the sclera of the left eye 7 to 8 mm. to the nasal side of the corneal limbus. Blood filled the anterior chamber for two days. After absorption the foreign body could be seen in the vitreous opposite the base of the iris on the temporal side. A drawing made at this time represents exactly its present position and appearance. One year later there was a moderate hyalitis of unknown origin, and confined to this eye, ending in complete recovery. The patient was treated at this time by the late Dr. George T. Lewis, whose notes furnish the above facts. The boy consulted me first in March, 1896, on account of accommodative asthenopia. A weak hyperopic cylinder relieved the symptoms and gave normal vision, which has continued. The presence and unaltered position of a piece of copper for seven years without irritation give interest to the case, and particularly in view of the opinion of Leber and others, that copper is more dangerous to the safety of the eye than other metals. In this case the fragment has become lightly encysted and gives no metallic reflex, excepting in a very dark room, where it emits to the illumination of the ophthalmoscopic mirror a reddish tinge.

DISCUSSION.

DR. G. C. HARLAN had the opportunity of following a case in which a piece of gun-cap had been imbedded in the retina for three years, without causing irritation.

DR. CHAS. H. THOMAS said that several years ago he had under his care a group of cases of gun cap injuries of the eye. In all, on account of rapid degeneration and threatening sympathetic ophthalmia, he was obliged to enucleate, although in two cases the foreign body had been carried for periods of eighteen and twenty-two years, respectively.

DR. S. D. RISLEY asked the President if he recalled to mind the eye enucleated at the University Hospital some years ago, where a foreign body was found sticking in the end of the optic nerve, the presence of which had not been suspected.

DR. B. A. RANDALL spoke of another case in which the foreign body had remained quiescent for a long time. He believes that such results are due to encapsulation of the foreign substance. There was an interesting case

which he drew for Dr. Norris at the University Hospital some ten years ago, as he may remember, where the bright piece of gun-cap was visible at the lower margin of the pupil, suspended in the remains of the lens capsule, and giving rise to little irritation; whence it was successfully removed by operation.

DR. NORRIS: I recollect very well the two cases that have been mentioned; the piece of metal which I extracted from the anterior chamber was a movable one; the patient could throw the foreign body from the anterior to the posterior chamber at will. I have no doubt the ultimate trouble was due to mechanical irritation as well as to the fact that the foreign body was copper. If I recollect aright, the man had some sight in the eye, although greatly impaired. It has always seemed to me that the reaction from these materials depended, first, on their asepsis at the time they entered the eye, and, secondly, on their state of comminution. All the Fellows are probably aware of Leber's ingenious experiments on this subject; he was very careful to introduce aseptic material, but the metals which he chose for this purpose were always in the finest state of pulverization, so that they were in the most favorable condition to be acted on by fluids of the eye. The copper and lead were promptly acted on and caused inflammatory reaction in the vitreous and retina; while the so-called "noble metals," gold and silver, in a similar state of pulverization, produced the same effects to a less degree. On the other hand, there are quite a number of cases where metallic foreign bodies have remained in the eye for a very long time without injurious results. Jäger has related a case where he watched for years a foreign body in the vitreous, which was apparently absolutely harmless as long as it remained encapsuled, and when it subsequently, some years later, sank in the vitreous, it commenced to make trouble. Of course, if there is a good layer of fibrin around one of these foreign bodies, there is less chance for chemical action and corrosion by the fluids of the eye and for absorption of metallic salts.

DR. HOWARD F. HANSELL: I would like to refer to a case that is still under treatment. One year ago the patient applied at the Jefferson College Hospital, and we deter-

mined the presence of a piece of steel in the eye. The inflammatory symptoms, however, subsided, and since he lived in Philadelphia and was easily accessible, we adopted the expectant treatment. The vision was lost and the eye gradually atrophied. This year he came back with opaque lens, discolored iris, atrophic eye, and a great deal of pain; he asked that something should be done for it. He was sent to the Polyclinic Hospital for examination by the Roentgen ray process, not so much to determine whether a foreign body was there, but to learn whether the rays would show the shadow. Dr. Stern, with a great deal of patience and skill, was able to get a beautiful skiagraph showing the presence of the foreign body. We endeavored to remove the steel by means of a magnet, but were unsuccessful. I then enucleated the eye and found a piece of steel $\frac{3}{4}$ of an inch long, caught in the ciliary body.

In answer to a question of Dr. Oliver, Dr. Hansell explained the method adopted by Dr. Stern, as follows: The plate was made fast against the man's temple, then by means of a lead funnel the rays were directed toward the inner angle of the eye of the other side, and passing through the nasal bones the outline of the outer angle of the orbit was distinctly shown. The steel was in the ciliary region and cast a well-defined shadow, while the eye itself was dimly outlined.

I may say, in this connection, that my friend, Dr. Clark, in Columbus, has made some successful experiments with this process, and has been able to determine the presence of a foreign body posterior to the iris by thrusting a very narrow plate covered with rubber up the nostrils.

NEW YORK POLYCLINIC MEDICAL SCHOOL AND HOSPITAL.—The trustees of the Polyclinic have decided to erect a new building on the site of the old one. Funds have already been secured for this purpose and work is to be begun immediately. The building will be adapted in every possible way to the requirements of the institution, and the two upper floors will be devoted to hospital facilities. There is every reason to believe that in its new home the Polyclinic will enter upon a career even more successful than that which has characterized its existence to the present time.—*Medical News*, Feb. 6, 1896.

THE PHILADELPHIA POLYCLINIC

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PHILADELPHIA, FEBRUARY 13, 1897

THE ABUSE OF MEDICAL CHARITY.

ELSEWHERE we reproduce from the columns of an always outspoken contemporary a strong picture of one phase of the abuse of medical charity. Our contemporary has, it is true, exaggerated the drawing and laid on the color somewhat too vividly, but the evil which it presents, does exist and should be remedied. There are many phases, too many phases, of what is commonly termed the "dispensary abuse," and even with all of these the list of the abuses of medical charity is but begun. To say nothing of well-to-do persons who habitually and systematically neglect to pay their physician at all, how very many there are who do not scruple to ask the "doctor" to cut down his bill, or to accept a lower rate of compensation than his usual fee, but who would be horrified at the very thought that, in so doing, they were asking for "charity." Yet that it is, neither more nor less. Every practising physician, too, must have had many letters written to him by "charitable" men and women, some of his acquaintance, some unknown to him even by name, asking him to forbear rendering a bill to such-and-such a person who has asked for

and received time-consuming attention, with no hint of other than the ordinary business relation. One does not object to giving his services to the deserving, but he should, at least, have the option of determining for himself, whether or not he will undertake a given case as an act of charity. And then the letters of introduction from clergymen and philanthropists, and the glow of self satisfied benevolence, with which many of these letter-writers regard themselves, because of the physician's generous response to their appeals!

A peculiarly annoying circumstance is when one has given his time and skill to the service of one unable to pay, to have friends call and ask whether a "change of climate" will not be beneficial—the chances being that it is unnecessary—because a purse has been raised to send the patient away. The answer that it would be better to raise a purse to buy food and pay the doctor, would be looked upon as churlish, to say the least; yet it would in most cases be literally true. Friends and relatives of the sick will contribute generously for any and every purpose—except to pay for medical attendance; and this, too, when the friends and relatives are wealthy. An amusing instance, however, of the willingness of a rich man to pay for medical services to his poor son-in-law, came under our notice recently. It illustrates not alone the exception, but the rule as well. The son-in-law had carcinoma of the esophagus pressing upon the larynx and causing paralysis of the vocal bands. The loss of voice was, to him, the chief complaint. He was sent from the interior of Pennsylvania to Philadelphia for admission to a hospital as a free patient. The physician to whom the patient was directed sent the man to his preceptor, by universal consent the most eminent laryngologist of America. The last-named physician called in consultation one of his surgical colleagues, likewise of inter-

national reputation, and, after a further consultation with a distinguished professor of medicine, it was decided that gastrostomy, as a palliative procedure, was the only possibility. The patient declined the operation.

Some time later a clergyman called upon the laryngologist under whose care the patient remained in the hospital, and said that he had been sent from a neighboring city by the patient's father-in-law to see "if something more could not be done" in the case. The situation was fully explained and the names of the physician and the surgeon consulted were mentioned. "Yes," said the clergyman, "but isn't there some doctor in the city who understands these cases? The father-in-law is rich—he will pay any price asked for a really first-class opinion—can't you send outside of the hospital for a man who knows what to do?" A suggestion that the rich father-in-law should pay for the patient's board at the hospital was duly resented.

The abuses we have mentioned and the many others we have refrained from mentioning are real. But what is one to do? The remedy is not apparent. One does not wish to degrade his profession to the level of a business; he does not wish to appear, much less to be, grasping or hard-hearted; he does not wish to deny his aid to the suffering. How can he escape both Scylla and Charybdis? We shall be glad to hear from our readers on the subject.

The dispensary abuse may perhaps be more amenable to treatment. In so far as it affects the Philadelphia Polyclinic Hospital it is under consideration by a Committee of the Trustees and Faculty, and the course of action determined upon will in due time be made public as a contribution to the discussion and practical handling of the problem. On this phase of the matter likewise, we shall be glad to receive letters, not too long.

S. S. C.

Editorial Notes

Appendicitis, an Epidemic Infectious Disease.—In a preliminary communication upon the subject, Professor Goluboff (*Berliner Klinische Wochenschrift*, January 4, 1897, p. 9), of Moscow, formulates the view that, in the majority of cases, appendicitis is an infectious disease *sui generis*—a distinct process, peculiar to the vermiform appendix, in the same way as follicular angina is peculiar to the tonsils, and dysentery to the colon, etc.; and that, at times, the disease occurs in epidemic form. He points out, among other things, that, at times, cases of appendicitis occur with unusual prevalence and especially in circumscribed areas of distribution. Certain analogies are noted to exist between infectious appendicitis and dysentery. The changes in the walls of the intestine are similar in both diseases and the morbid process varies from a mild catarrhal inflammation to deep gangrenous ulceration. Both own analogous predisposing causes, *e. g.*, the ingestion of indigestible food, the presence of scybalous accumulation and exposure to cold; and both are associated with the same microorganisms; the streptococcus pyogenes, the staphylococcus pyogenes and the bacterium coli commune, which, though usually harmless occupants of the bowel, may, under circumstances not yet understood, assume virulent activity. The recognition of appendicitis as an epidemic infectious disease would aid in the explanation of a number of hitherto obscure circumstances. For instance, the disease sometimes sets in suddenly in an individual in perfect health, in the absence of constipation, intestinal disorder, or other appreciable etiologic influence, and operation may fail to disclose either scybalous accumulation, congenital anomaly of the appendix, or angulation or dislocation.

A. A. E.

The best investment of a dollar is to subscribe for THE PHILADELPHIA POLYCLINIC.

Selection.

An Appalling Situation.

WITHOUT a self-regulating check on dispensary abuse it is bound to increase. No test by garment texture can separate the very poor from those able to pay. The well-to-do often come in rags, and the self respecting poor, struggling to keep a situation, come fairly well dressed. As things are going, it is only a matter of time till most persons not possessing wealth will be drawn into the vortex. Even now the evil is so great that the majority of young medical men have no possible way of getting into practice but through dispensary work. The patients that under normal conditions would be willing to engage them, now get treatment free and when they do pay for a call the dispensary doctor gets it. The sole alternatives left them are starvation, suicide, quackery, some other business, or covert advertising. What wonder that a large multitude of graduates disappear from professional life within a few years of graduation? What wonder that there are vastly more suicides among medical men than in any other profession? As there are scores of applicants for every dispensary vacancy, what wonder that there are unseemly scrambles for such places? What wonder that the situation debases many of them into sycophants and wire-pullers? Such a struggle leads to degeneracy by favoring the survival of the mean. Such as gain the places often seek to live above the temptations of their environment by trying to do their whole duty to those they treat; but it is impossible. But a very small number are there primarily as missionaries of science. The majority are there to build up a practice. They see and know that they are being cheated out of their rights in having to do so in this manner, but they only dare to protest in a half-hearted way. Looking around them, they discover that janitors, butchers, bakers, grocers, nurses, managers, clerks, pharmacists, porters, messengers—all are paid for their services. None of them do obeisance to the lying fetish misnamed Charity. Doctors must work as wreckers of their own profession, and be satisfied with the fragments of the wreck. If it was true charity, no one would

complain. If only the needy came, and under conditions that did not debase them, how glorious a mark of our civilization all this would be? It would inspire men to do their best. Their whole hearts would be in their work. Then we would see true deeds of charity for charity's sake. Oh, that one having authority would come and scourge out of these modern temples those that are there purely as money-changers! Would he not utter the same scathing words as Christ did under similar provocation?—*American Medico-Surgical Bulletin*, Jan. 25, 1897.

In the Clinics

Under the Editorial Charge of DR. OAKLEY W. HERMANCE.

In a case of *rheumatoid arthritis*, in the clinic of Dr. S. Solis-Cohen, considerable relief followed the administration of *iodothylin* in doses of 5 grains, three times a day.

* *

DR. SWEET has employed, with satisfactory results, the *eye salve* suggested by Dr. W. Allan Jamieson, of London. It is composed of lanolin, 3 drams; oil of sweet almonds, $\frac{1}{2}$ dram; and distilled water, $\frac{1}{2}$ dram. In this form it may be employed to prevent the lids becoming glued together by any mucous secretion, while in eczema of the lids it forms an excellent vehicle for the yellow mercury oxid, of which two grains may be added to each half-ounce. The salve gives a pleasing sensation of coolness to the lids without any irritation or smarting, and seems to be superior in some cases to salves prepared with other bases.

* *

DR. THOMAS S. K. MORTON recently presented to the class a boy aged 8 years, from whose left *orbit* he had removed a *dermoid cyst*. The family had been previously free of any similar occurrence. When the boy was three years of age, a swelling was noted above and just without the inner canthus of the left eye, projecting through the upper eyelid. This

was opened by a physician. Three years later it again appeared. When he came under Dr. Morton's care, nearly five years after the first operation, the growth filled the inner portion of the orbit, and was just commencing to displace the eyeball outwards; although its projection was entirely limited to a bulging of the upper lid. There was no discomfort complained of. Diagnosis, in the absence of knowledge of the contents found at the first operation, rested between dermoid cyst and meningocele. Upon making a careful dissection through an incision in the upper lid it was found that the growth was only adherent to the old incision and, at its extreme base, to the inner wall of the orbit, one and a quarter inches below the level of the lid. It was pear-shaped (the stem being attached deeply as noted), about the size of a pigeon's egg, and entirely outside of the cone of the ocular muscles. No important structure was injured in the excision. Owing to free bleeding and the depth of the wound, it was impossible to carefully inspect the point of attachment to the bone or to be sure that the pedicle did not perforate into the brain cavity or a sinus.

Interrupted sutures were introduced, without drainage, and a pressure dressing applied for a few hours. Primary union of the wound was secured. At the time of exhibition only a half-inch scar upon the upper lid towards the inner canthus, running obliquely from above downwards and outwards, was observable.

The growth, upon section, proved to be a dermoid cyst. Its wall, inside and out, was fibrous, except a portion of the inner lining, one-half inch by one-fourth inch in area, which was composed of true skin containing sebaceous and hair glands. The contents of the cyst were two drams of thick sebaceous material and a group of hairs springing from the patch of skin.

New Publications

AMONG important recent publications is the new International Magazine of Medical History and Geography, entitled *Janus*. It is published in Amsterdam under the directorship of Dr. H. F. A. Peypers, with the assistance of a corps of collaborators, including among others Dr. Osler of Baltimore, and Prof. Pepper of Philadelphia.

Six numbers yearly are published, the first number having been that of July and August, 1896. It is well illustrated. Specimen copies will be sent upon application to the Editor, Parkweg 62, Amsterdam.

THE *Review of Reviews* for February makes "A Plea for the Protection of Useful Men" from bores and "societies," and all well-meaning people who bother the life out of public men by letters and calls on the pretext of seeking assistance in some worthy undertaking. The editor of the *Review* publishes letters on this subject from the late Gen. Francis A. Walker, written only a few weeks before his death. In one of these letters General Walker wrote, "I am not well, and neither callers nor correspondents have any mercy." Physicians can thoroughly sympathize with, and endorse the writer's arguments.

BOOKS RECEIVED.

LE RÔLE DE LA GRAISSE DANS LES HERNIES. TRAITEMENT — PROPHYLAXIE — TRAITEMENT PALLIATIF. Par le Dr. Just Lucas Championnière, Chirurgien de l'hôpital Beaujon. 8vo, pp. 20. Paris: A. Cocoz.

VINGT CAS DE FRACTURES DE LA CLAVICULE TRAITÉS PAR LE MASSAGE. Par Le Dr. Dagron. 8vo, pp. 16. Paris: A. Cocoz.

THE DISEASES OF INFANCY AND CHILDHOOD. For the use of Students and Practitioners of Medicine. By L. Emmett Holt, A.M., M.D., Professor of Diseases of Children in the New York Polyclinic. Pp. 1117. D. Appleton & Co. 1897.



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THE PHILADELPHIA POLYCLINIC

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EPIDEMIC INFLUENZA (CATARRHAL FEVER IN CHILDREN.)

BY JOHN MADISON TAYLOR, A.M., M.D.

Professor of Diseases of Children in the Philadelphia Polyclinic and College for Graduates in Medicine;
Neurologist to the Howard Hospital, etc.

IN the last few years, epidemic influenza has obtruded itself as a very important disorder in most civilized countries, and is to be found intermittently in nearly all parts of the United States. None of the infectious diseases deserves more prompt and intelligent management both in prophylaxis and in treatment. Complications and sequelæ demand the most careful and protracted attention. The fact that the infection attacks very young children with great readiness, that one attack cannot be said to protect against another, and that the prostration is out of all proportion to the obvious organic disturbance, makes it a disorder which calls for the utmost persistence and positiveness at the hands of the medical adviser. Epidemic influenza may be described as an infectious disease, attended by profound weakness and serious catarrhal disturbance of the respiratory or gastro-intestinal organs and many distressing and dangerous nervous phenomena. There is no distinctive type of infantile influenza, but it complicates some diseases, and appears to be antagonistic to others, notably, scarlatina and diphtheria. Scarlatina seems to have been subdued by it into a very mild form. With diphtheria, it is apparently never associated, although influenza is frequently accompanied by a form of sore throat, with yellow, pulpy deposit in large masses, closely resembling diphtheria, but in this is not to be found the Klebs-

Loeffler bacillus, and it disappears promptly upon treatment, even by local measures only. In the character of their toxic influence diphtheria and influenza have many points of similarity; the extreme depression, slowness of recovery and susceptibility of nervous tissues mark them as much alike; so, also, the influence of these poisons upon the heart, with the slow or irregular pulse, long maintained and sometimes never quite restored.

Causes.—The essential cause of influenza is now admitted to be a bacillus, whose discovery is attributed to Pfeiffer and also Cannon, and the isolation of which is attended with a good deal of difficulty. It is a small, specific organism, resembling the bacillus of mouse septicemia, but shorter, and appears in the blood and the secretions from the nose and intestines. The earliest site of infection is usually the throat. There are certain contributory causes pointed out among which meteorologic conditions are mentioned. The spread of the disease is of extreme rapidity and along the lines of travel.

Diagnosis.—If the disease is not known to be prevalent, the earlier cases are liable to be overlooked, unless of great severity. Ordinary acute catarrhs, however, are rarely so severe or accompanied by such pain and prostration, nor does the process extend to contiguous organs. When influenza is epidemic, there is less difficulty in recognizing an attack, which is marked by rapid onset, sudden and

high rise of temperature, and usually evidence of pain in the head or generally about the body or in some limited locality. Cases of sudden irritability of the stomach and intestines, accompanied by head pains and severe fever may be assumed to be influenza. From pneumonia it may be differentiated by the absence of physical signs in the presence of the general symptoms of chill, cough, etc.; but very soon we may find actual pneumonia as a complication, either when it is thus suspected, or following mild attacks of catarrhal fever, when not anticipated, and yet characteristic physical signs will be demonstrated upon search. Often the case presents a complete picture of pneumonia, with, however, an absence of the dulness on percussion, when, in true pneumonia, auscultation would have led us to expect it.

Influenza resembles measles in its onset, both in catarrhal symptoms and sometimes in the rash. At other times, scarlatina is simulated by the throat symptoms along with a scarlatinal rash, both usually of short duration. When the lung symptoms are protracted and severe, miliary tuberculosis may be feared. Typhoid fever closely resembles catarrhal fever, even in the matter of eruption, but the rose-colored spots in catarrhal fever are more numerous, extend over larger areas, persist longer, and remain as slightly brown discolorations for some time after fading. The fever, moreover, is more irregular than in typhoid, nor do we see the apathetic face so constantly, the countenance being flushed in influenza, and pale in typhoid. The mind, moreover, is clear, the temper often irritable. The temperature in influenza frequently shows an evening fall and a morning rise (the reverse of typhoid progression), and often there is a marked rise and fall at periods of a week. Oftentimes, meningitis and influenza are scarcely to be differentiated, though, in true meningitis, the muscles of the neck and back exhibit a characteristic and intense ri-

gidity of a persistence not seen in catarrhal fever. The diagnosis may be delayed during the progress of ill-defined and mild symptoms, but is made known by the feebleness of the child during convalescence, especially by a weak, irritable heart, and disabilities of various sorts, especially for sustained exertion.¹

Prognosis.—Influenza is a very fatal disease, partly from the virulence of the toxin generated in the blood, which may kill outright, and partly from the devitalizing effects wrought upon the great organs, and also from its serious sequelæ and complications. In children these resulting effects are milder and more limited than in adults; neuritis is rare. Persistent nervous cough is perhaps the most frequent. Gastric influenza with profuse nervous vomiting occurs in very young children, also there is an influenzal dysentery most persistent and depleting. The mortality varies in different epidemics and in some of them children are more affected, in others, adults. All kinds of children are apparently attacked indiscriminately. So sudden is the fatality that sunstroke and malignant malaria or scarlatina may be suspected. The digestive and respiratory organs may escape, the poison overwhelming the nervous system. Weaker children naturally succumb more readily. Robust children, however, are frequently changed into frail, feeble beings for years or for life.

Symptoms.—The usual form of the influenza attack is a severe catarrh of the upper respiratory organs, often beginning with sneezing, sometimes as a laryngitis, less frequently as a tonsillitis, and rapidly extending to the throat and lungs, along with pains in the head or elsewhere, neuralgias or myal-

¹ The difficulties of diagnosis are great, yet to one familiar with the disorder, certain things are known. Dr. A. W. Watson suggests that it requires a good deal of courage to persist in the diagnosis of influenza till subsequent phenomena appear and confirm; before recovery there is always some doubt.

gias, disturbances of the heart action and extremely irregular fever. The next in frequency (perhaps as frequently in children) is acute gastritis or diarrhea or both, also associated with pains and the other symptoms described. The third form depends upon involvement of the brain or nerve system. It is manifested by irritability and fretfulness (almost pathognomonic), or there may be hebetude, or rather apathy, from which the child is easily roused, and is then fairly bright, not slow and dull of speech as in typhoid fever. There may occasionally be convulsions or coma vigil.

There may be chill and delirium at first, possibly a convulsion and usually extremely rapid, more or less irregular pulse. At once the temperature begins to be flighty and may run high, but not as a rule. This may alternate with or soon be followed by subnormality. All these three groups of symptoms or so many of them as are not masked by the others may occur together or in rapid succession. Headache or other pain is evidenced only by the child putting his hand to the suffering locality.

The respiratory catarrh is liable to extend alarmingly, involving first one lung, then the other, producing severe bronchitis or bronchopneumonia which sometimes clears up unexpectedly or destroys life, largely in proportion to the (not to be predicted) severity of the toxicity or the resistance and vigor of the child.

When the digestive organs bear the brunt of the attack exhaustion is from a double cause. Malnutrition is severe, appetite is often lost after the vomiting or diarrhea is controlled, and a wretched picture is presented of collapse and emaciation.

Complications may involve any and every organ in the body. Tuberculosis is liable to infect the thus depraved constitution. Middle ear disease often occurs. The skin is variously affected, herpes, erythema and

urticaria being common. Rheumatism, or rather, painful arthritis is a common and distressing feature. The kidneys suffer, but not often. The bones are affected occasionally (a periostitis). Those children having a tendency to rickets are liable to develop it. Glandular enlargements are common and persist.

The younger the child the less characteristic are the symptoms. In the very young gastric symptoms prevail. The spleen is sometimes enlarged; albuminuria occasionally appears.

Treatment.—Prompt and efficient isolation with full means for disinfection is demanded from the start.

To this there should be no demur nor temporizing, though neither the public nor the health authorities realize this yet. The treatment must be symptomatic, and among the first comes relief of pain. During the stage of high fever repeated hot foot-baths are most grateful; and carefully watched aconite tincture, $\frac{1}{2}$ to 1 minim, may be given every ten or fifteen minutes, or soon to be followed by the coal-tar antipyretics (for temporary use), and next full stimulation by champagne, or spirits in effervescent waters, or brandy and ginger ale at short intervals; also concentrated foods till the stomach can receive more substantial fare. Full feeding is to be given soon and persistently.

For the respiratory catarrhs a combination of atropin, morphin acetate, or codein in small repeated doses gives great comfort. This had best be accompanied by strychnin to sustain the heart. Quinin is also indicated, the hydrochlorate best, and by the rectum. For vomiting, bismuth subcarbonate may be given in chloroform or peppermint water or cinnamon water. For very severe gastritis cocain will often relieve; $\frac{1}{200}$ of a grain being given every half hour. The hot foot-bath helps this too, as does mustard to the epigastrium or neck.

Phenazone is a good analgesic and expect-

torant, and this or phenacetin, along with sodium salicylate or salicin every two or three hours, will relieve the myalgia. For intense muscle pains the hot pack or steam bath, general or local, is comforting.

Convalescents demand the most watchful, persistent care. Here the great standby is strychnin in increasing doses (up to the verge of twitching), and long continued tonics and nutrients; persistent overfeeding, predigestion,—measured amounts of easily digested foods, meat extracts, tonics of various sorts, digestants; hypophosphites, codliver oil, and, above all, change of air, which is demanded in tardy or incomplete convalescence.

THE CORNEAL REFLEX AND THE SIGHT-HOLE IN THE MIRROR OF THE OPHTHALMOSCOPE.

BY EDWARD JACKSON, A.M., M.D.

Professor of Diseases of the Eye in the Philadelphia Polyclinic, and Surgeon to Wills Eye Hospital.

THE corneal reflex is one of the necessary difficulties of ophthalmoscopy. After we have gotten rid of annoying reflexes from the margin of the sight-hole, the light reflected from the cornea remains and cannot be avoided. If the pupil be large, we readily see into it through portions not covered by the reflex, but if the pupil be small, the reflex may cover the whole of it, increasing the difficulty and lessening the value of the ophthalmoscopic examination.

Now, this corneal reflex is annoying, because it gives a diffusion circle on the retina, it being a point of light too close to the eye to be focussed; and this circle of diffusion falls on the part of the retina which we wish to use for the ophthalmoscopic examination. (See article by Dr. George C. Harlan, PHILADELPHIA POLYCLINIC, January 4, 1896.) As a circle of diffusion, its size, the portion of

the retina it occupies, depends directly on the size of the aperture, through which light is admitted to the eye. The aperture is in this case the sight-hole of the mirror, this sight-hole being smaller than the pupil. Hence, by reducing the size of the sight-hole of the mirror we reduce the circle of diffusion from the corneal reflex, and greatly facilitate the examination of the fundus through the undilated pupil.

There are other advantages that the reduction of the sight hole gives, as gain in the illumination of the eye examined, and reduction in the blurring caused by regular or irregular astigmatism. Here I only wish to call attention to this gain in the reduction of the corneal reflex. Knapp and Loring perfected the ophthalmoscope as an instrument for the measurement of refraction, and for that purpose chose the sight-hole of between three and four millimeters. That use of the ophthalmoscope was never its most important use, and has become less important since the introduction of the shadow-test. We may wisely modify the instrument by reducing the sight hole to about one-half that diameter, to two millimeters, or less.

CESSATION OF THE "UNION MEDICALE."

—After fifty-one years of dignified existence, the *Union Médicale* ceases its publication with this year. The three principal editors, Richelot, Richardière and Eugene Rochard, join the editorial staff of the *Bulletin Médical*.

E. B. TREAT, New York, announces the early appearance of The International Medical Annual, for 1897, being the fifteenth yearly issue of that well-known one-volume reference work. The prospectus states that the volume will be the result of the labors of upwards of forty physicians and surgeons, of international reputation, and will present the world's progress in medical science.

Society Proceedings

COLLEGE OF PHYSICIANS OF PHILADELPHIA.

Section on Ophthalmology.

NOVEMBER 17, 1896.

DR. OLIVER exhibited a series of

OPHTHALMOSCOPIC PICTURES OF PECULIAR AND RARE CHORIO-RETINAL CHANGES, THE RESULT OF TRAUMATISM.

The first of this grouping was seen but a few hours after the patient, a man of 42 years of age, had been struck in the left eye by a fist. Almost total blindness ensued immediately after the accident.

The eyeball was unruptured. The cornea seemed unusually brilliant. The interior chamber was deepened, especially in its peripheral portion. The pupil was round, and the iris, though tremulous, was mobile to consensual reaction. The lens was dislocated directly back, its stained border resting against the retina just behind the inferior portion of the equator of the globe. The vitreous humor contained some rather fixed, doubtful streaks of blood in its anterior portion.

As shown in a water-color sketch made by Miss Washington, the optic disk was greenish in tint and appeared bloodless. There were a few deeply situated hemorrhages in the retina, and a series of large choroidal ones extending along the retinal vessels, which were reduced to mere threads. There were broad and greenish elevated areas, as though the deeper retinal tissues against the choroid were thickened, swollen and opaque. The patient became blind in a few minutes and never regained vision.

In contrast with this sketch, which illustrated the grossest effects as seen ophthalmoscopically from concussion accidents, Dr. Oliver exhibited water-color drawings of five other cases extending from minor degrees of visible change to the more pronounced varieties, one of which (the fourth example) closely resembled the chromolithograph in Jonathan Hutchinson, Jr.'s, well-known case.

DISCUSSION.

DR. HARLAN thought that in order to explain the blindness in Dr. Oliver's first case, there must have been injury to the retro-

bulbar portion of the optic nerve resulting from a fracture of the orbit. In this Dr. Oliver coincided, believing that this was proved by the bloodless condition of the optic-nerve head and the greatly marked reduction of the main retinal trunks.

DR. S. D. RISLEY had, some years ago, reported to this Section the history of a case to which his attention was called while absent on his summer vacation. A man had been thrown from a hay-rake, and was struck in the temple fossa by one of the teeth, which penetrated the soft tissues deeply and probably caused a fracture of the orbital plate. There was found advanced atrophy of the optic nerve, marked infiltration of the tissues surrounding it, and large white patches in the macula and throughout the temporal half of the eye ground, apparently the site of extensive hemorrhages, as remnants of the clots were still visible. In this case there had probably been a post-ocular hemorrhage following a temporary exophthalmos.

DR. B. A. RANDALL recalled a case that he reported to the American Ophthalmological Society ten or twelve years ago, which had a little peculiarity that may have a bearing upon some of the peculiar appearances of the eye-ground. There was, as the result of traumatism, rupture near the disk, especially interesting and peculiar in that it passed upon the temporal side of the disk to its upper margin and then was lost in a rounded area to the nasal side, that looked as if it had been subjected to torsion. The result was an inflammatory lesion leading to complete atrophy.

DR. EDWARD JACKSON presented a case of DEFICIENCY OF PIGMENT, ALLOWING THE FUNDUS REFLEX TO SHOW THROUGH THE IRIS.

At a former meeting of the Section he had shown a similar case. Both of these patients had undergone cataract extraction; in the one shown this evening there was rupture of the sphincter, the lens having proven to be larger than the average. It was the only

changes in the choroid in the eyes of many old people. Attention is called to this condition, one that may readily be overlooked, since it is perhaps more common than the two cases would seem to indicate. It is brought out while illuminating the fundus as much as possible, at the same time leaving the affected part of the iris in comparative darkness. As only three weeks had elapsed since the extraction, the time was too short for any extensive atrophy to occur. The time he had met this accident in simple extraction. The fundus reflex showed through other parts of the iris almost as readily as through the part at which the rupture had occurred. Possibly it might be that there were other ruptures of the iris, but the distribution of the fundus reflex was entirely different from that indicating rupture of the iris. It constituted a general area of red against which the details of the iris were seen. It was rather a rounded area, and did not consist of fissures through which red reflex could be obtained. It could hardly be regarded as a rupture of the posterior layer of the iris because there was no change in the outline of the pupil. There was no deformity of the pupil in the case previously reported. Rupture of the posterior layer would necessarily cause deformity in the pupil, certainly a rupture of such considerable size. The posterior layer opposes the action of the sphincter, and the two together give the pupil its form. It is quite possible that this appearance is the result of atrophy of the pigment cells from stretching of the iris, but probably it is simply an atrophy comparable to the pigment of the iris was not rubbed off by the lens in its passage through the pupil.

DR. H. F. HANSELL read a paper upon
REPORT OF THE SUCCESSFUL REMOVAL OF A PIECE
OF STEEL FROM THE VITREOUS BY THE HIRSCH-
BERG MAGNET AND EXHIBITED THE PATIENT.

J. S. received a small fragment of metal in the left eye in April, 1896. After the transient discomfort had subsided, he gave the accident no further thought, until it was revived in his memory by the questions asked when he applied in October at the Jefferson Hospital, on account of failing vision and inflammation in the eye. A bright reflecting piece of metal could be readily seen with the ophthalmoscope floating in the vitreous, and a

small scar below, and to the outside of the corneal limbus, was found, after careful searching. V. $\frac{20}{200}$. An incision through the conjunctiva and sclera between the external and inferior rectus was made, through which the smallest tip of the Hirschberg magnet was inserted. After two unsuccessful efforts, a small triangular, corroded piece of steel was removed with the loss of an insignificant amount of vitreous. In one week the vision was $\frac{20}{20}$. Three points may be noticed in connection with this case; namely, the comparatively long time between the entrance of the steel and its removal, the retraction of the edges of the scleral cut as the tip of the magnet was withdrawn, and the recovery of excellent vision.

Current Literature

The Cause of Warts.—Having noticed the formation of a wart from the accidental introduction of a small spicule of glass on his own person, Schaal (*Archiv f. Dermatologie und Syphilis*, Band xxxv, Heft 2) believes that warts are due to the mechanical irritation applied to the papillæ of the corium by the entrance of a foreign body, which leads to swelling of the tissues, with a localized and increased formation of epidermis. As these excrescences are witnessed upon the exposed portions of the body, the author is convinced that small foreign substances are admitted in this way and produce warts, when no bacteria are present; but that when pyogenic bacteria are attached to them they excite supuration.

J. A. C.

A Promising Treatment for Leprosy.—In *The Lancet*, of August 8, 1896, Crocker records the result of treating two cases of leprosy by means of mercuric chlorid hypodermically. This remedy had previously been accidentally given to a case of leprosy which had been supposed to be due to the syphilitic virus, and which had subsequently revealed its true nature, although greatly benefited by the drug. In the two cases under consideration the dose given was one-fifth of a grain in solution, administered by a Pravaz syringe every week into the buttocks. The author believes the mercuric chlorid to act as a germicide and to be worthy of further trial, as the improvement was very well marked in both cases.

J. A. C.

THE PHILADELPHIA POLYCLINIC

Brief, practical, original articles, and news of general professional interest are solicited for publication in this journal. Contributions accepted will be paid for on publication, or, if desired, 250 reprints will be furnished in lieu of other compensation.

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PHILADELPHIA, FEBRUARY 20, 1897

HELP THE MUTUAL AID ASSOCIATION OF THE PHILADELPHIA COUNTY MEDICAL SOCIETY.

SOCIETIES for extending financial aid to needy families of deceased medical men have long existed in London, New York, Boston, Philadelphia, and probably in other cities. It is proper that the public as well as physicians should aid these organizations in their charitable work.

The members of the medical profession carry on a business or profession for profit it is true, but it is one which frequently fails to secure a competency for old age or monetary independence for the surviving wife and children. This is largely due to the great amount of unpaid work among the poor which occupies the time of even the most distinguished physicians, and to the expense necessarily incident to medical practice. The doctor must have a home and office of such character as will convey the impression that he is successful in his career. Otherwise, patients will not consult him. As nearly all his work must be done by his own hands he cannot employ assistants to the extent that is possible in mercantile circles; hence a horse and carriage must be added to his outfit in

order that his daily work may be accomplished expeditiously. His personal qualifications are his capital; therefore he must have expensive books and instruments, if he is to be properly equipped. These expenses are continuous and when added to the cost of his original education make the physician's outlay very great. Another factor in the case, and one often forgotten, is that every day of sickness or recreation in a doctor's life means a diminution of income; for his patients want him, and not his substitute or assistant. Every physician probably has experienced, or will experience, the loss of lucrative patients because he happened to be away from home for a vacation when they sent for him. If, on the other hand, he takes no rest, but labors constantly without relaxation, he becomes broken in health. Then he loses patients as well as health.

Some years ago, members of the Philadelphia County Medical Society organized a Mutual Aid Association, which pays annuities to the widows and orphans of its members if they need such help. The association has thus far accumulated about \$12,000, and has nearly one hundred living members. If every member of the Philadelphia County Medical Society would join the Mutual Aid Association and endeavor to increase its permanent fund, its Committee on Benevolence would be able to greatly increase its charitable work.

It is especially incumbent upon medical men who have accumulated money to make donations or provide in their wills for legacies to the Mutual Aid Association of the Philadelphia County Medical Society. Doctors know the trials and cares of doctors, and those who have the means should be willing to thus aid their brethren. Even small legacies under the careful supervision of the directors of the Association will in time become efficient agents to relieve distress. The treasurer of the association is Dr. G. B. Dunmire, 1618 Spruce Street, Philadelphia.

J. B. R.

Editorial Notes

Abuse of Privileges Extended by Dispensaries and Hospitals.—Concerning the existence of abuses of the privileges extended by dispensaries and hospitals there is no difference of opinion. That a considerable number of patients receive gratuitous treatment at hospitals and dispensaries who can afford to pay for medical service and attendance there is no doubt. While the abuse is recognized, the decision as to the correct remedy is a difficult one. There are individuals who will practice deception whenever the opportunity offers. For these radical measures will always be necessary. There remains, however, a very considerable number of applicants for the privileges of hospitals and dispensaries who need only be informed that these privileges are intended for those unable to pay for medical attendance in order to appreciate the situation and aid in the correction of an abuse that increases progressively by tolerance. No worthy person is to be deprived of medical care, but the question of indigency is one that must finally be left to the sense of propriety of the applicant. In any event it is better to err on the safe side and that some unworthy individuals should receive gratuitous treatment than that a single worthy one should be deprived of such consideration. Apropos of this subject a committee of the New York County Medical Society, appointed for the purpose of investigating the subject of abuse of the privileges accorded by hospitals and dispensaries at the hands of persons able to pay for medical service, has discovered that the president of a street railway is a regular attendant at one of the New York free dispensaries. Many people are said to drive in cabs to the clinics. The figures show that thirty-nine per cent. of the population of New York City avail themselves of the privileges afforded by 26 hospitals and 114 dispen-

saries. Of this large number it is probable that a very considerable proportion are able to pay for the service rendered. Similar statistics would no doubt be found to prevail in any other large city. The ordinary mind cannot but be impressed by the fact that there is in reality a larger number of free medical institutions than there is actual need for and that a useful purpose would be subserved if steps could be taken looking toward the consolidation of the less important with the more important, with especial consideration for the matter of distribution. By the present system abuses of the privileges extended by hospitals and dispensaries is encouraged rather than the reverse.

A. A. E.

In the Clinics

In a case of *nocturnal enuresis* in a youth, 19 years old, Dr. Eshner advised *elevation of the foot of the bed* in order to bring the pelvis upon a higher level than the head and prescribed fifteen drops of equal parts of fluid extract of *ergot* and tincture of *belladonna*, to be taken thrice daily.

* *

THE difficulty of differentiating a *congested fundus* in which the tympanic membrane and ossicles are absent, from one in which they are present, was illustrated by a case of the first mentioned type, reported by Dr. Stout. A careful examination of the case with the unaided eye left the condition in doubt. The end of a delicate probe, which was tipped with cotton, was bent at a right angle to the shaft and gently inserted to the fundus. Then as the tip slipped over the edge of the sulcus tympanicus and the Rivinian segment it was demonstrated to be a case, in which the tympanic membrane and ossicles were undoubtedly absent. These cases often prove especially embarrassing to the younger physician, or to the practitioner of moderate experience in ear work; and those of wide experience rarely form an opinion without the aid of the probe as above.

Correspondence

NOTE ON CHOREA IN A NEGRO BOY.

To the Editor of *The Philadelphia Polyclinic* :

Chorea in the negro is exceedingly rare, but this brief note of a case is largely for the purpose of eliciting comment, and, I hope, will be followed by the recording of other cases. Moreover, this case I offered to Dr. Rhein, who has two others to report, and a fuller account of it will be added to his two, making a lot of three I have seen in the negro.

J. B., male, aged six years, applied for my service at the Howard Hospital with excessively severe chorea of the "electric" sort; sudden, jerky movements, competent to throw him down while walking, and, on one occasion, threw him out of bed to the floor, most marked on the right side, but also involving the left. Volition greatly exaggerates movements. He had a good deal of rheumatism, only recently, however, and beginning in the legs, which continues, but passing thence to the hips, then ankles, right wrist, and lately in the neck, causing much pain.

The interesting feature here is the ancestry. In Dr. Rhein's two cases (seen at Dr. Weir Mitchell's Clinic) there was also a cross of Indian blood. This boy's father's mother was half Indian and half white; his father's father was a full black, his father's mother had white blood, his mother's mother was an octoroon.

It would be most interesting if those physicians who have an opportunity of observing the Indians where they have intermingled with the blacks—as in the old Cherokee and Creek reservations in our Southern States—would look this matter up and let us know (Dr. Rhein, or myself).

JOHN MADISON TAYLOR, M.D.,
1504 Pine Street, Philadelphia.

The Laboratory.

Under the Editorial Charge of Henry Leffmann.

Urine Preservatives.—It is deemed worth while to record briefly the results of some

experiments on urine preservatives. Attention has already been called to the value of chloroform, but as this reduces Fehling's solution it seems desirable to secure a preservative that is not open to this objection. Formaldehyde is now in such favor as an antiseptic and preservative, that it will be well to call attention to the fact that it is a powerful reducing agent and has therefore no advantage in this respect over chloroform. Moreover, it is under some conditions at least less volatile. Chloroform is quite permanent and seems to have no disposition to enter in combination with any of the ingredients of the urine, hence it can be removed at any time by simple boiling. Formaldehyde, on the other hand, is not only liable to form compounds with organic bodies, but undergoes changes when in solution by which it becomes less volatile. It seems, however, to be otherwise unsuitable for use as a urine preservative. In a few days, the liquid becomes turbid, and while it does not putrefy, there is apparently some change. With chloroform the liquid keeps clear for weeks. Comparison experiments were made by dividing a sample of well marked diabetic urine in several equal portions, and adding to each portion small amounts of common preservatives: Salicylic acid, benzoic acid, sodium benzoate, salicyl-sulfonic acid and the commercial solution of formaldehyde known as formalin. The salicylic acid used was the "true," *i. e.*, derived from the oil of wintergreen. For the first twenty hours no difference was seen in either liquid, but during the second day yeast granules began to appear in all except the salicylic acid and formalin solutions. The yeast grew slowly but steadily, and by the fourth day the fermentation was evident and some putrefaction had begun. The salicylic acid seemed to come next to the chloroform. It will be necessary to determine how far this will interfere with any of the sugar-tests since it

cannot be removed by any simple operation. A sample of presumably normal urine was also preserved by the use of salicylic acid, but it seems to exaggerate somewhat the deposit of uric acid crystals, though this tendency would be of no importance in connection with the questions that usually concern samples to which preservatives are added.

Practical Value of Extremely Delicate Tests for Albumin.—In view of the attention being given in journals lately to certain delicate tests for albumin, it may be well to recall some observations published by Dr. D. D. Stewart a couple of years ago (*Med. News*, May, 1894). Dr. Stewart discussed especially the trichloroacetic acid test which has the reputation of being one of the most delicate tests known. He shows that normal urines respond regularly to this reagent and that this is probably due to a mucinous body of extra-renal origin. His experiments were conducted on 105 samples of urine, each from a different person, most of the contributors being young males in presumably good health. Some distinct albuminurias were found among them. Even supposing that the precipitate produced by the trichloroacetic acid is always an albumin coagulum, which is far from probable, its significance is actually *nil*, as it would follow that a normal slight albuminuria occurs. It is, however, more probably due to nucleo-albumin or so-called mucin. We shall discuss this question further in a later issue.

New Publications

AUTOSCOPY OF THE LARYNX AND THE TRACHEA. (Direct Examination without Mirror.) By Alfred Kirstein, M.D., Berlin. Authorized Translation (Altered, Enlarged and Revised by the Author) by Max Thorner, A.M., M.D., Cincinnati, O., Professor of Clinical Laryngology and Otology, Cincinnati College of Medicine, and Surgery, etc. With twelve illustrations. 8vo, pp. xi-68. Philadelphia: The F. A. Davis Co.

This new method of examination of the larynx, while not superseding laryngoscopy,

is an important addition to our means of examination of the larynx, in that it enables us to obtain a view of that part of the larynx—the posterior wall—which, by the mirror, we cannot see. For this reason, and because of its simplicity, this method is undoubtedly destined to come into general use. In this monograph the author describes his instrument, the "autoscope," the theory of its application, the technic of its employment, etc., together with a discussion of its relation to the laryngeal mirror in both examination and operations in the larynx. This subject is of general interest, but the book should be read especially by those who contemplate using the autoscope. The book is appropriately dedicated to Dr. J. Solis-Cohen, one of the first and most enthusiastic advocates of the method in this country. A. W. W.

TRANSACTIONS OF THE AMERICAN ORTHOPEDIC ASSOCIATION. Vol. IX. 1896. 8vo, pp. 279. Illustrated. Philadelphia: Published by the Association.

This volume, containing the many valuable papers and able discussions presented at the annual meeting of the Association in 1896, equals, if not excels, those of previous meetings. The papers, followed by a healthful diversity of opinions and individual efforts in the discussions, illustrate the profound thought and advanced knowledge of the workers in this important branch of surgery. The papers were not confined to any particular department of orthopedic surgery, but included investigations throughout the whole domain.

The President's address, "A Definition of the Scope of Orthopedic Surgery," sets forth in a clear, terse manner the extent and limitations of that province of surgery.

Dr. E. H. Bradford's paper "On the Compression of the Front of the Feet," and Dr. John C. Schapp's paper on "Some Apparatus for the Treatment of Pott's Disease," are practicable and commendable. Dr. DeForrest Willard, on "Congenital Anterior Displacement of the Hip," records a rare deformity. The Skiagraphs of Talipes Equinovarus, Tuberculous Knees, Knock-Knees, and Congenital Absence of the Fingers, presented by the same author, especially commend themselves as illustrating the value of the Roentgen-rays in this department of surgery. J. K. Y.

THE PHILADELPHIA POLYCLINIC

VOL. VI—No. 9

FEBRUARY 27, 1897

OPHTHALMIC MEMORANDA.¹

BY GEORGE E. DE SCHWEINITZ, M.D.

Professor of Ophthalmology in the Philadelphia Polyclinic.

Acute Syphilitic Tarsitis.—An unmarried man, aged 33, white, born in England, a machinist by occupation, was admitted to the Ophthalmic Wards of the Philadelphia Hospital on the 30th of October, 1896, on account of an acute swelling of each eyelid.

He gave the following history: He has been addicted to the use of alcohol for ten years, often going on prolonged sprees. Nine months ago, during a debauch, he contracted the primary lesion of syphilis, the chancre having appeared upon the corona. Two months later he was covered with a papular syphilid and the post-cervical, inguinal and epitrochlear glands were characteristically enlarged.

At the time of his entrance into the Hospital a papillo-squamous rash was distributed over both arms, and one large squamous patch appeared on the inner surface of the right thigh. A number of glands were enlarged, particularly those in front of the ear and in the axilla, and both eyelids were enormously swollen, their surfaces being covered with a somewhat glistening, reddish flush. The tarsus on each side was greatly thickened, sharply outlined, and represented a structure fully four or five times its normal size. On everting the lid, the conjunctiva appeared as if covered with thickened granulations on its palpebral surface, between which were scattered small local yellowish swellings. The vision was $\frac{5}{10}$ in each eye, and on each side there was a small vertically oval disk, with distended veins and lymph sheaths and marked peri-papillary retinal striation.

Treatment consisted of the administration of ascending doses of mercury protiodid until the teeth were slightly tender. This

was followed by ascending doses of potassium iodid and later by mixed treatment, that is, potassium iodid and mercury bichlorid.

There was a slow subsidence of the condition, and at the present time, or two and one-half months after his admission to the Hospital, while there is still a slight thickening of the edge of the tarsus, the lids have practically returned to their normal condition.

Acute tarsitis is distinctly rare, and I think the case described this evening may be fairly classified as an acute case coming on in a rather early period of syphilis, probably between the eighth and ninth months, and associated with the active skin eruptions of the secondary period of this disease.

The chronic varieties are more common, and, so far as I am aware, are more apt to be found in that period of syphilis which is sometimes called the gummatous period, in fact, they consist of a gummatous infiltration of the tarsus. Any one interested in the different varieties of syphilitic tarsitis may consult with satisfaction Alexander's monograph, "Syphilis und Auge." Of the seventeen cases analyzed, only four of them are considered to represent acute types of this affection.

Acute Suppurative Tarsitis.—In this connection I would like to refer briefly to a case recently under my care in which the diagnosis mentioned in the title seems to be an accurate one.

¹ Paper read before the Ophthalmic Section of the College of Physicians.

The patient, a practicing physician in this city, about forty years of age, several weeks ago began to suffer with irritation of the right upper eyelid, which in a few days was greatly swollen, reddened, boggy and tender. After the disease had been present for four or five days I saw him in consultation with Dr. Eckman, and found the lid several times its natural size. Through the edematous skin could be felt the greatly thickened but also softened tarsus; in fact, when the skin was pressed down, the characteristic shape of the tarsal plate was well outlined and this structure appeared to be four or five times its natural thickness. Along the edge of the lid were five small yellowish points of suppuration corresponding to the foramina of Meibomian ducts. The tarsal conjunctiva was injected, as was also the bulbar expansion of this membrane, and there was a slight catarrhal discharge.

After twenty-four hours application of compresses steeped in hot boric acid solution, there was slight subsidence of the general swelling of the lid and more marked outlining of the tarsus. The central portion of the lid was now split on its free margin by an incision which joined all the suppurating points previously described, and there was revealed a large slough apparently occupying the position of the tarsus, and indeed being the remains of its disintegrated tissue and the underlying glands. This was removed with forceps and curette, leaving a gaping wound, which was thoroughly cleansed and the boric acid compresses continued.

In another forty-eight hours the wound had closed without further extension of the sloughing process and the lid is now entirely healed, the only remains of the trouble being a slight induration along its margin. No cause for this condition was discovered, although the physician was greatly worried because he had ten days previously dressed in a patient a chancroid, and feared that he had infected his eye. The rapid healing of the wound, however, indicated that this etiological source was not to be considered.

It is quite possible that this case should be regarded as an ordinary abscess of the lid, of somewhat virulent type, but the peculiar slough which presented when the lid margin was split, certainly gave the impression that

the fibrous plate which is ordinarily called the tarsus, had been the chief seat of the suppurative process. I have not before seen an appearance exactly like it.

Ectropion Uvae Probably Traumatic.—

On the 1st of November, 1896, there was admitted to the Ophthalmic Wards of the Philadelphia Hospital a man, about 60 years of age, suffering from lachrymal obstruction of the right eye.

When the eye was examined the condition represented in the accompanying water color by Miss Margaretta Washington was observed, namely: a black patch passing from the margin of the pupil upward and slightly outward, and terminating in a somewhat fringed border about midway between the pupillary and ciliary margin of the iris. The color of the patch was the ordinary black of the uvea and was bordered by a somewhat whitish line, such as one sees when fibers of the iris undergo atrophy. The appearance of the black patch was exactly that which is given when a liquid metal, for example, molten lead, slops over the edge of the vessel and becomes congealed along its side. In other words, it was exactly as if the uveal pigment had overrun the pupillary border and spread itself out in this area upon the surface of the iris. Careful examination with the loupe and Jackson's binocular magnifier showed this supposition to be correct.

The patient stated that this patch had been there since boyhood, and had followed an injury to the eye inflicted by a stone being thrown against it, or, rather, by a number of stones, as, for example, a handful of sand or pebbles. He is very positive in his statement that this was the cause of the lesion, although there is no external mark on the eye, on the cornea, or on the sclera, which indicates the remains of a former injury. In other respects the eye shows no lesion, and his vision without correction is good.

In 1894, Dr. Lucien Howe, of Buffalo, analyzing cases of ectropion uvea, reported to that date, found ten cases, to which he added three more. I have not searched the literature since, although I know that several additional cases have been reported. These prolapses of the uveal pigment appear most

frequently to be congenital, and I think it is not unlikely that the one that I report tonight belongs to the congenital category, although the patient so positively dates its appearance to an injury. They are probably more frequent than the records would lead us to suppose. In another class of cases the formations are more globular and pedunculated. Sometimes two or three of them occur

at the margin, similar to the projections which are normal to the eye of the horse and cow. These have been called papilloma of the uvea, a particularly inappropriate name, as we are quite unacquainted with their pathologic or histologic characters, and have no reason to believe that they possess the characters of a morbid growth.

A CASE OF CLOSED FRACTURE OF THE HUMERUS REQUIRING INCISION FOR REDUCTION.

BY JOHN B. ROBERTS, M.D.

Professor of Anatomy and Surgery in the Philadelphia Polyclinic and College for Graduates in Medicine;
Professor of Surgery in the Woman's Medical College, Philadelphia, etc.

On November 26, 1896, a boy of 16 years fell into the hold of a vessel, fracturing his left arm near the junction of the upper and middle third. A few days later he was brought to me by his physician, Dr. Aaron Howell. There was a great deal of swelling and I applied my usual dressing which utilizes the chest wall as a splint by holding the arm against the chest. I then sent him to the Polyclinic Hospital to have a skiagraph taken of the injury. The picture was taken without removing the dressings and it was found that the upper end of the inner fragment was displaced inwards and the upper end of the outer fragment outwards and that there was about an inch over-lapping. Dr. M. J. Stern and Dr. L. W. Steinbach made efforts to reduce the fracture under ether but were unable to accomplish it. On December 9th, I made similar unsuccessful efforts at reduction under ether but failed to bring the fragments into apposition. An incision about six inches long was accordingly made upon the front of the arm going through the anterior portion of the deltoid muscle. At the time of operation the swelling had disappeared and the displacement of the bones was very easily felt. When I had uncovered the fragments by my dissection I found that the periosteum had been stripped from the inner side of the upper end of the lower fragment for about two inches and that the lower end of the upper fragment was entangled underneath this band of periosteum and the other soft parts, in such a way that it was impossible to

bring the ends of bone into coaptation, even with my fingers in the wound. I and my assistants made repeated efforts by extension and counter-extension, rotation and other manipulations to disentangle the upper fragment and bring the pieces of bone together. I made an incision in the edge of the periosteal band for the purpose of relaxing it, but found that this was of no advantage. We were unable to reduce the fracture until I had excised about half an inch from the upper portion of the lower fragment and a small portion from the upper fragment. After this resection I was able to reduce the fracture and wire the bones together.

There were two sharp points sticking up from the upper end of the lower fragment due to the irregularity of the line of fracture which was practically a transverse one, but it was not these irregularities that were the cause of the difficulty in reduction. It required a great deal of force and considerable time to unhook the end of the upper fragment from beneath the soft tissues where it was entangled. The fracture was apparently below the attachment of the greater pectoral muscle which seemed to be the displacing cause which drew the upper fragment inward toward the axilla. The wound was closed. The patient has made an uninterrupted recovery under the same fracture dressing as that originally applied, namely, bandaging the arm to the side of the chest with appropriate padding, so as to utilize the chest wall as a splint.

For nearly twelve years I have contended that under certain circumstances surgeons should not hesitate to convert a recent closed fracture into an open one. I believe this same principle should also be applied to the treatment of closed dislocations which cannot readily be reduced. Other surgeons have from time to time urged these same conclusions, but the profession in general does not seem to realize the importance of such a line of treatment. The injuries to which such operative treatment is to be applied are relatively few, but they form a sufficiently large class to make it desirable that physicians and surgeons should keep in mind the possibility of such a line of treatment being demanded by the best interests of the patient.

The advantages accruing in fractures from an incision exposing the broken bone are exact knowledge of the bony lesion, perfect adjustment of the fragments, release of entangled muscles, vessels or nerve, relief of pain, avoidance of ankylosis and fat embolism, and quick recovery of function without impairment of the normal mechanical construction of the skeleton.

In dislocations the method is desirable because it prevents the occurrence, during forcible attempts at reduction, of fracture of the bone or laceration of vessels and nerves,

and permits division of muscles, tendons and ligaments which interfere with proper reduction of the dislocation. In neither fracture nor dislocation should the open method be adopted until the insufficiency of subcutaneous methods has been proved. The latter, however, should not be persevered in for too long a time or applied with other than moderate force.

In a paper prepared for the Pan American Medical Congress of November, 1896, I elaborated my views on this subject.¹ The case just reported is a striking example of the propriety of exploratory incision in the treatment of closed fractures. I am inclined to believe that the relatively frequent occurrence of non-union in fractures of the upper portion of the shaft of the humerus is due to a similar entanglement of periosteum or of muscle between the ends of the broken bone. This disposition of the soft parts prevents union and is not suspected, until the fact that an ununited fracture exists is made evident after the removal of the fracture dressings. The case just reported would without question have resulted in non-union, if the difficulty of coaptation and the displacement, first shown by the skiagraph while the parts were swollen, had not caused me to expose the seat of injury.

¹ *Medical News*, January 16, 1897.

DRY LABOR.

BY CHARLES BAUM, M D., Philadelphia.

MRS. F., æt. 42, pregnant for the sixth time, was born in England. Her family history is negative. With the exception of catarrh of nose, ear and throat, she had never been sick, of any consequence; never was robust. She is of medium stature, spare figure, and of nervous temperament. She states that all her labors had been "dry," but had not been tedious, and no lacerations had occurred.

Slight pains began at 2 A.M., on December

17, 1896. At 3.30 A.M. I found the membranes intact, while the head was descending in the first position of the vertex. During and after a pain, the examining finger could not detect the presence of liquor amnii. The vagina was of natural warmth and smoothness. No mucus adhered to the finger. The pains were regular and efficient. For a woman at term, her abdomen was not so prominent as is usual for her stature. By palpation the outline of the child could be easily

felt. When the head rested upon the perineum, there was observed a very slight amount of tenacious secretion lubricating the parts. At this period the membranes were ruptured. They were moderately tough. There was no escape of liquor amnii. The tissues of the outlet dilated rapidly and completely, and in two hours and fifty minutes from the time the first pain was felt, the woman was delivered of a fully developed female child, weighing $7\frac{1}{2}$ pounds. There was no flow of liquor amnii after the delivery of the head or body of the child. There was just sufficient mucus secreted to lubricate the maternal tissues, not sufficient to soil a handkerchief. From the time of the rupture of the membranes, the procedure was under direct vision and in a good light, so that it was impossible to have been deceived. The efforts of labor did not cause a glow of heat to the woman. After slight friction over the abdomen, the placenta was expelled into the vagina, and was easily removed in a few minutes by trac-

tion and rotation. The membranes showed only one opening. Upon careful inspection there could not be discovered any laceration of the soft parts. The uterus contracted firmly, and after-pains were so slight as not to require medicine. Milk was secreted without a sign of "milk fever," and the entire "lying-in" period was passed without an unpleasant symptom.

When delivered, the babe was so clean as not to require washing.

REMARKS. (1) The absence of an appreciable amount of liquor amnii makes this case of special interest. (2) The ease and rapidity of the labor—three hours for all stages—without a laceration in a dry labor is remarkable. (3) Having had ocular demonstration that this was a dry labor, the statement of the woman that her former five labors were dry and short can be believed.

Society Proceedings

COLLEGE OF PHYSICIANS OF PHILADELPHIA.

Section on Ophthalmology.

NOVEMBER 17, 1896.

DR. CHARLES A. OLIVER presented a

BRIEF CLINICAL AND HISTOLOGIC STUDY OF A
CASE OF EPITHELIOMA OF THE CORNEO-SCLERAL
JUNCTION.

The condition was found in a 69-year old man. The growth first manifested itself as a small "pimple" at the lower outer corneal border of the right eye, and gradually and painlessly increased in size. When first seen it appeared as a fleshy and wart like looking mass about the size of a pea, and embraced an area equal to almost the lower outer quadrant of the cornea.

In spite of careful excision with free thermocauterization repeated more extensively some two months later, the mass recurred until in four months' time it had become so great in size and so angry in appearance, that the eyeball with the surrounding conjunctiva was removed, the operation, by reason of renal and cardiac disease in a weak and feeble patient, being almost painlessly done

during local anesthesia by the use of hydrochlorate of cocaine. Up to the present writing there has not been any recurrence.

From a clinical standpoint the case is most interesting. Commencing as a "pimple" in the epithelial structures of the conjunctiva at the transition-border between the cornea and sclera, as is almost universal in such cases, the mass gradually and painlessly increased in size until it assumed the papillomatous variety of growth. It then extended into and beneath the epithelium of the cornea far in toward the summit of the membrane. In other words, the tumor-mass evidenced its development and growth in a manner that is eminently characteristic of epitheliomatous formations.

The quick recurrence and steady increase of the growth, in defiance of the extreme radical measures employed for extirpation, manifestly evidenced the necessity of removal of the entire field of malignancy. The almost uncontrollable oozing of blood, ex-

perienched during the operative procedure, plainly showed the extreme vascularity of the neoplasm.

Microscopically, the specimen was exceedingly instructive, not only by reason of presenting the characteristic appearance of epitheliomatous formation in the region involved, but upon account of the undoubted protrusion of the epithelial cells into the interlamellar corneal spaces (which possibly might have been produced or rendered more easy by the operative procedures pursued in the earlier stages of the disease), and the insertion of the same form of malignant cells into the superficial layers of the sclera (layers which were untouched by operation); but is also of great interest in substantiating the view that the deepest penetrations of the epithelial cells into the outermost tunics of the eye were in the transition zone between the cornea and the sclera—that is, at the corneoscleral junction.

Current Literature

A Case of Antipyrin Eruption.—Under the heading "A Case of Antipyrin Eruption," Dr. Webber (*The Lancet*, June 6, 1896) records the history of a female patient who, at the age of fifty-three, had been operated upon for the removal of a cancer of the cervix uteri by means of the supra-vaginal method. During the occurrence of pain she was given ten-grain powders of antipyrin twice daily for three weeks, when it was found that the temperature had risen to 101.4° F., while the pulse registered 102. The eruption which appeared after taking this drug for the time limit mentioned, resembled a very severe case of measles. With proper medication this eruption soon disappeared. The antipyrin was then again given, with a similar effect. J. A. C.

Impetigo Contagiosa Universalis.—Allen (*Annals of Gynecology and Pediatrics*, October, 1896) records a most interesting case of contagious impetigo, in which the common lesion was rather a bulla than the usual vesicular manifestation. These lesions would often come out in localized crops, but at another time would show themselves at diverse regions. When newly formed, the bulla

would be tense, having clear contents; but unless ruptured in an early stage, they became turbid and flaccid. Rupture taking place left a reddened, denuded, tender and painful surface, which showed spreading at the margins, with an undermined or raised condition of the epidermis, while the fluid escaped at the free borders, drying into light, wavy crusts; the center presenting a cover of dirty material, made up of hardened blood elements. At first there was no erythematous zone, but after a short time this would appear as a narrow, bright red band, which spread out before the extending process. The coalition of several of the larger and smaller bullæ would often show serpiginous forms, with a subsequent pigmented area. Glandular enlargements were noted both in the cervical region and in the groins. The interesting portion in this report is the appearance of lesions at diverse regions as well as the bullæ which presented themselves, and the question as to what the cyclic manifestation was due. Allen believed that it was because of the micro-organism remaining in the tissues, as the succeeding crops presented themselves upon the margins of the former patches or upon the pigmented areas which had already been implicated, and that the transfer of the contagious elements was due to the scratching, as entire freedom was given to the back, upon which the child was unable to carry the infection. Dr. Fox, who had produced two beautiful photographs of the condition, believed that in the exacerbating form of the disease the micro-organisms had gained entrance to the general circulation, and in some way, not yet understood, had produced their effects in a cyclic manner. As the staphylococcus pyogenes aureus may always be found in the turbid contents of the bullæ, says Crocker, the author's statement that a suppurating lesion would seem to be required for it to gain a foothold, is ingeniously explained by Dr. Payne, President of the Dermatological Society of Great Britain and Ireland, whom the writer quotes: "That the cocci cultivated in the local seat of inflammation become sufficiently virulent to produce vesicles and pustules in the neighborhood;" and until a better explanation is offered, or a specific microbe is discovered, this explanation is sufficiently scientific and plausible.

J. A. C.

THE PHILADELPHIA POLYCLINIC

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PHILADELPHIA, FEBRUARY 27, 1897

A PROFESSORSHIP OF STOMATOLOGY.

SOME time ago we called attention to the influences exerted on the general health by the condition of the teeth, pointing out that modern dentistry had recognized much more injury than that which is local to the structures of the mouth. We need a word to include the whole subject of the diseases of the mouth. The term dentistry is so closely associated with the mere operative-work, and comprehends so much that is more mechanical than clinical that it will not serve as a descriptive term. "Stomatology," the science of the mouth, is the word that has found vogue of late, and Philadelphia now boasts an "Academy of Stomatology" composed of prominent dentists, and in active operation. Our present purpose is, however, not to discuss this society, but to point out that a scientific study of the histology and pathology of the teeth, both as to their local and general relations, deserves a place in regular medical schools on the same plane as the recognized specialties, and is perhaps more worthy than some of them. It has been said that the practice of medicine is confined to

the sick, but that dentistry includes both sick and well.

A professorship of stomatology would, we believe, be a valuable addition to the regular medical curriculum. It would be quite unnecessary to include, in this any instruction in the making of substitute-structures or even the filling of teeth. These are important matters, but they are essentially mechanical, and they can be best left to those who have the gift of manual skill. Instruction in tooth extraction should be given. It is probably needed, for we recall having seen a very distinguished surgeon break a tooth in a clumsy attempt to extract it, and, moreover, seem to feel no shame at the failure. In the more closely-populated places, skill in extracting teeth comes but little in demand from the general practitioner, since in such places persons make a speciality of this work. The duties of a professor of stomatology would be to present a comprehensive course on the comparative anatomy, development and histology of the teeth, discuss the causes and varieties of tooth diseases, their local and remote effects, exhibiting clinical cases illustrating these forms and point out the methods of treatment, carrying out so much of the latter as did not involve purely mechanical procedures. The incumbent of such a chair should be a dentist in actual practice, who should also be a graduate in medicine.

We look forward to the time when every person who aspires to be a member of the dental "profession" will be required to enter it through the doors of the medical college. Doubtless the establishment of professorships of stomatology in medical schools would hasten this reform, but this is not the main object for advocating the plan. We feel satisfied that much practical benefit will result if physicians are made aware by systematic instruction that the teeth are as much objects of medical treatment as the eyes, the uterus or the stomach. It is possible the

scope of the stomatologist might be broadened so as to include the entire digestive tract, but this is a matter of detail which probably can only be settled by actual trial. H. L.

Editorial Notes

Enteric Fever Without Intestinal Lesions.

—That enteric fever is not a local process, with lesions confined to the intestinal tract, has long been known, although it is only within recent years that this fact has been adequately appreciated. In truth the demonstration only became possible with the recognition of the specific micro-organism upon the activity of which, it is now almost universally admitted, enteric fever depends. The principle that the fact exemplifies is of exceedingly wide application. For instance, we may have diphtheric infection without the formation of pseudo-membrane, as we may have pneumococcal infection without pneumonia, tuberculous infection without pulmonary involvement, and so on.

To the inconsiderable number of cases in which enteric fever has been unattended with intestinal lesions, BEATTY (*British Medical Journal*, January 16, 1897, p. 148) has added another, in which the diagnosis was confirmed by bacteriologic investigation, and possibly a second, in which the confirmatory evidence was not secured. In a communication presented at a recent meeting of the Royal Academy of Medicine in Ireland, this observer related the case of a man, 34 years old, who died on the sixth day of his illness, death being preceded by jaundice, hematuria, and finally coma. On post-mortem examination the spleen and mesenteric glands were enlarged, but the intestines displayed no lesion. Typhoid bacilli were cultivated from the spleen.

The second case occurred in a man, 19 years old, death taking place on the sixteenth day of the illness. In this case the spleen resembled that commonly observed in typhoid

fever, and the mesenteric glands were enlarged. The intestines, however, displayed no lesion. No bacteriologic examination was made in this case, but the result of the post-mortem investigation showed that the only solution of the illness was to be found in a blood-intoxication and by analogy with the first case it was strongly suspected that the attack was one of typhoid fever. A. L. F.

In the Clinics

Under the Editorial Charge of DR. OAKLEY W. HERMANCE.

DR. RANDALL called attention in his clinic to a *handy test for the upper limit of hearing*, emphasizing the importance of ready means of producing sounds for testing deaf-mute children, and deciding the difficult question, upon which the prognosis may largely depend, of whether they hear at all. The Galton whistle is frequently the best test, since it can easily be kept completely out of sight, can be sounded at will at either ear and through a wide range of high tones, and really show if the child hears it enough to turn toward the unseen source of sound. Most of the Galton whistles imported vary decidedly from the original instrument, and that of Belgian make, more commonly seen is a useless travesty. Those which Dr. Randall has had made in Philadelphia have all been standardized, and the cost has only been the five dollars charged for them abroad.

Tuning-forks are more cumbersome tests and for the higher tones also costly. Like the Koenig rods for producing notes of very high pitch, they are difficult to obtain of accurate make, and rather awkward to use. Dr. Randall has recently noted that a small screwdriver, made from steel wire and sold in the bicycle-supply shops for ten cents, has quite a pure, strong tone of about 35,000 vibrations per second; and has found it fairly uniform and convenient for testing this part of the range of perception. He can

distinctly recommend them for all such uses, and thinks it likely that careful search would find quite a series of them giving the various notes of that octave.

* *

A CURIOUS *anomaly of the accommodation* came under Dr. Schneideman's notice recently. The patient, an exceptionally robust young man, aged 21, was myopic, 0.37 D. in the right eye, 4 D. in the left, with full vision in each. Glasses had never been worn. He evidently used the right eye for distance, and it was equally evident that he employed the left for near, for he habitually worked at ten inches, the far point of that eye; was unable to see clearly even a few inches further, and noticed little or no difference when the right eye was excluded by a shield. With the correction of the myopia, measurement of the near points, monocularly and binocularly, gave the following discordant results: With both eyes, the accommodation was very feeble, fine type could not be read at all; with the right eye alone there was somewhat greater accommodative power, but less than 3 D., while the left eye possessed a range of accommodation equal to 8 D. The explanation of these anomalies is probably to be found in the particular character of the anisometropia. The left eye, adapted for near work without accommodation, had never exercised this function in binocular vision, and therefore had never acquired the power under that condition; the right eye, never having been employed for near vision, neither alone nor in conjunction with the left, had not developed its accommodation. The full correction was ordered with the hope that binocular vision would be thus secured for all distances.

* *

The Clinic for Defects of Speech.—The formation of a new clinic in a large hospital is always an interesting study, and there is

no department more novel than the newly organized clinic for the correction of defects in speech.

At a first visit one is almost astonished at the number of people who have sought relief from the various varieties of this class of affection.

Dr. Makuen occupies four rooms for the operation of his clinic, a waiting room for new patients and three class rooms, where the patients are divided into groups and classified according to the character of their defects, each class in the charge of an instructor. Upon entering the room the first impression received by the uninitiated is that of a confused Babel of sound, which upon closer inspection resolves itself into the concerted efforts of these classes, receiving instruction and practicing the various exercises.

It is encouraging to note that the majority of the patients are young, and that the instruction is received with great intelligence and interest, and the various exercises seem to have been practiced faithfully at home. The methods employed seem to be based upon strictly scientific principles. Special attention is given to what Dr. Makuen calls the "breathing of voice production," which is claimed to be different from ordinary passive breathing. The chief point of difference is in the action of the diaphragm during exhalation. In *sounding* exhalation the diaphragm should be contracted, while in silent exhalation this muscle is relaxed. Rhythmical movement which is the result of the alternate contraction and relaxation of the respiratory muscles is the secret of good voice and good speech.

All speech defectives breathe badly, and it may be claimed that 10 per cent. of the cases will be cured when they acquire the habit of correct breathing. The remaining 90 per cent. have defects in speech in addition to those due to faulty breathing.

A careful diagnosis is made in each case and a record of every peculiarity of speech is kept.

The following questions are asked every patient and the answers noted :

- (1) What is the trouble?
- (2) How long has it existed?
- (3) Is it increasing?
- (4) Has patient ever associated with any one similarly afflicted?
- (5) Have any relatives been similarly afflicted. If so, what was their relationship?
- (6) Did he ever try to imitate any one similarly afflicted?
- (7) Did he ever receive a fright?
- (8) Was he ever ill-used?
- (9) Has he had an acute illness, such as small-pox, measles, whooping-cough or scarlet fever?
- (10) Is he now in good health?
- (11) Are his hearing and sight good?
- (12) Is he a bright or dull boy?
- (13) Were his parents related before marriage? If so, what was the relationship?
- (14) Is there any consumption, insanity or idiocy in the family?
- (15) Do you know anything else about his mental or physical condition?
- (16) What do you think is the cause of his trouble?

During the first two months over one hundred and twenty-five new patients applied for treatment. One hundred and ninety-five was the total registration for the month of December.

New Publications

ARTIFICIAL ANESTHESIA: A MANUAL OF ANESTHETIC AGENTS AND THEIR EMPLOYMENT IN THE TREATMENT OF DISEASE By Laurence Turnbull, M.D., Ph.G., Aural Surgeon to the Jefferson Medical College Hospital, Philadelphia; Late Honorary President to the Otolological Subsection of the British Medical Association and of the Section of Laryngology and Otology of the American Medical Association. Fourth Edition revised and enlarged. Illustrated. Philadelphia: P. Blakiston, Son & Co. 1896.

The fourth edition of this valuable work comes most opportunely at a time when the

general interest in anesthetics has been aroused by the recent celebration of the fiftieth anniversary of the public demonstration of the power of ether. The arrangement of subject matter has not been changed materially. Nitrous oxid gas receives full attention in Part II, the author's personal experience and experiments placing him in the position of an authority upon the subject. The chapters given to ether are rather disappointing, in that so little is said of the practical aspect of the subject, the therapeutics and descriptions of various forms of now obsolete apparatus receiving the lion's share of attention. The directions for resuscitation in case of dangerous symptoms during ether anesthesia are meager and lack explicitness, the use of oxygen being overlooked. The pupillary signs and their significance in the different stages of ether anesthesia are ignored. The part on chloroform is complete and satisfactory in every way. The argument concerning the relative values of this drug and ether is most scholarly.

Parts V and VI are devoted to local anesthesia and are quite complete. The method of Schleich receives a full description and illustration. The last chapter in the book from some standpoints is the most interesting.

In dealing with the legal responsibility of the physician the author, after laying down the rule that the anesthetizer should give undivided attention to the work, follows with this most important and interesting statement: "In our hospitals clinical assistants should be instructed for at least six months in the chemical, physiological and toxicological nature of anesthetic agents, and after being thoroughly trained in their use and in the means of resuscitation, receive a certificate of competency. It is too often the case that valuable lives are placed, as it were, in the hands of young men who have no proper knowledge of their use and who do not appreciate the great responsibility under which they are laboring."

W. O. H.



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THE PHILADELPHIA POLYCLINIC

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THE "SCHOTT METHOD" OF GYMNASTICS IN THE TREATMENT OF CHRONIC DISEASE OF THE HEART, WITH REPORT OF A CASE, AND DEMONSTRATION OF THE EXERCISES.¹

BY SOLOMON SOLIS-COHEN, M.D.,

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Physician to the Philadelphia Hospital, etc.

Assisted by

CHARLOTTE WEST, M.D.,

Clinical Assistant in the Medical Department of the Philadelphia Polyclinic.

THE treatment to which I desire to call the attention of the Society is a portion of the so called Nauheim treatment of cardiac disease, which was inaugurated some twenty years ago by Drs. August and Theodor Schott, and has recently found its way into English literature, chiefly through the writings and labors of Dr. W. Bezly Thorne, of London.

The treatment carried out at Nauheim is directed toward the relief of the damaged heart, in cases of dilatation or of ruptured compensation associated with valvular lesions, by action upon the peripheral vessels and blood-spaces; partly through the effect of thermal, saline and carbonated baths, and partly by a special system of gentle muscular exercise, which, with the assistance of Dr. West, I shall partially demonstrate this evening. The baths are an important but not an essential portion of the treatment—that is to say, the exercises will do a great deal alone, as we have experienced in four cases. In some instances the baths alone are said to have been successful. At Nauheim, the baths are given in gradually increasing strength in the natural waters, which are of

various temperatures and carbonated, containing likewise a number of alkaline and iron salts. Dr. Schott and Dr. Thorne both say, however, that the essentials of the baths can be artificially reproduced by the use of heat and the appropriate reagents, and give formulas for the purpose, chiefly calling for the use of sodium and calcium chlorids in increasing quantities, and finally of free carbon dioxid; the latter being released from reservoirs, or evolved in the bath by the use of sodium bicarbonate and hydrochloric acid. I hope soon to have facilities for extended observation with these artificial baths, but up to this time I have nothing special to report concerning them, and, therefore, shall confine my remarks this evening to the exercises.

The method of exercise is called by Dr. Schott *Widerstandsgymnastik*—resistance-gymnastics. Perhaps, the best way to English this term would be to call it *resisted exercises*, but this alone would not convey the idea. "Swedish movements" are resisted-exercises, too; but this system is differently carried out. "Gently-resisted movements" would perhaps convey the idea better. The

¹ Extracted from a paper read before the Philadelphia County Medical Society, January 27, 1897.

patient makes very slight efforts with various muscles, and these are resisted very gently by the operator. As the treatment progresses the resistance is increased, calling upon the patient to put forth greater exertion. There is a course of exercises laid down by Dr. Schott, the whole occupying from thirty minutes to one hour, but the number and degree of movements are varied according to the patient's requirements. With my patients only twenty minutes' exercise has thus far been attempted.

I have been very fortunate in securing the expert assistance of Dr. West, as a mere nurse could not properly carry out the treatment until thoroughly drilled by the physician.

Dr. Schott says that his system consists of slow movements made by the patient and resisted by the operator, short intervals being allowed for rest. The exertion should be small and the patient should be loosely clothed and told to breathe quietly. This matter of quiet breathing is highly important. It must be watched and controlled by the operator. The resistance should not be of such a kind as to prevent the patient feeling master of the situation. The operator must not grasp or in any wise constrict the limb, but oppose by the hand held flatly. The following rules are laid down:

(1) Each movement is to be performed slowly and evenly, that is, at a uniform rate.

(2) No movement is to be repeated twice in succession in the same limb or group of muscles.

(3) Each single or combined movement is to be followed by an interval of rest.

(4) The movements are not allowed to accelerate the patient's breathing, and the operator must watch the face for the slightest indications of (a) dilatation of the *alae nasi*; (b) drawing of the corners of the mouth; (c) duskiness or pallor of the cheeks and lips; (d) yawning; (e) sweating; (f) palpitation.

(5) The appearance of any of the above signs should be the signal for immediately interrupting the movements in process of execution; and for either supporting the limb which is being moved, or allowing it to subside into a state of rest.

(6) The patient must be directed to breathe regularly and uninterruptedly, and should he find any difficulty in doing so, or for some reason show a tendency to hold his breath, he must be instructed to continue counting in a whisper during the progress of each movement.

(7) No limb or portion of the body of the patient is to be so constricted as to check the flow of blood.

The physiologic effect and therapeutic object of these procedures are to accelerate the flow of blood through the vessels, and diminish the work thrown upon the heart, allowing its chambers to contract more readily—hence the importance of attending strictly to the details mentioned.

The exercises, as the members now see by Dr. West's demonstration, consist in motions with the limbs, hands, feet and trunk, made against slight resistance. They are so devised as to call into operation, according to a definite order and succession, nearly every voluntary muscle and system of muscles in the body. While this order has been carefully worked out by the brothers Schott as the result of long experience, the physician is to use his judgment as to which exercises are to be used and which omitted in any particular case. The system advised begins with the upper extremities, goes to the trunk, then to the lower extremities, and concludes with a return to the upper extremities. The motions include extension, flexion and rotation, or circumduction. As already stated, the movements are carried out in a certain definite system, uniformly with intervals of rest after each movement, and with gentle resistance upon the part of the operator, who carefully watches the effect, so that the patient shall not be exhausted. The operator especially regulates the patient's breathing (which is not allowed to become accelerated), and watches the color of the face; hurried breathing, even distention of the nostrils, flushing, pallor, or sweating, being a signal for interruption or cessation. In suspending the treatment, the operator's judgment decides

whether to support the part being exercised in the position it has assumed, or to allow it to return gently to a position of normal rest. So, too, while it is best for the patient to stand, he may sit or lie when too feeble to begin treatment otherwise.

The following is the list of exercises :

(1) Arms extended in front of body on a level with shoulder, hands meeting; arms carried out until in line and brought back to original position.

(2) Arms hanging at sides, palms forward; arm flexed at elbow until tips of fingers touch shoulder, back to original position; one arm only moved at a time.

(3) Arms down, palms forward, arms carried outwards and upwards until thumbs meet overhead; back to original position.

(4) Hands in front of abdomen, fingers flexed so that second phalanges touch those of opposite hand; arms raised until hands rest on top of head; back to original position.

(5) Arms down, palms against thighs, arms raised in parallel planes as high as possible; back to original position.

(6) Trunk flexed on hips; return to original position.

(7) Trunk rotated to left—to right; return to original position.

(8) Trunk flexed laterally.

(9) As No. 1, but fist clinched.

(10) As No. 2, but fists clinched.

(11) Arms down, palms against thighs, each in turn raised forwards and upwards until arm is alongside of ear, then turned outward; arm descends backwards.

(12) Arms down, palms to thighs, both together moved backwards in parallel planes as far as possible without bending the trunk forward.

(13) Thighs in turn flexed on trunk, opposite hand resting on chair.

(14) Lower extremities in turn extended fully, and bent on trunk forwards and backwards to extreme limits of movements, opposite hand resting on chair.

(15) Legs in turn flexed on thigh; both hands on chair.

(16) Feet together, lower extremities in turn abducted so far as possible and brought back to original position, opposite hand on chair.

(17) The arms extended horizontally outwards, are rotated from the shoulder-joint to the extreme limits forwards and backwards.

(18) The hands in turn are extended and flexed on

the forearm to extreme limits and brought back in line with arm.

(19) The feet in turn are flexed and extended to extreme limits and then brought back to their natural position.

The duration of the exercises is from twenty minutes to an hour and a half, an hour being the average at Nauheim, even in the beginning. The following are the results stated to be obtained by the baths and exercises at Nauheim :

(1) Diminution in the frequency of the pulse, with increase in its force and fulness; (2) Contraction of the heart, as shown by diminution of the area of cardiac dullness and recession of the apex-beat upward and toward the median line. (3) Slower and deeper breathing, with a sense of lightness and relief in the chest; (4) A better color of the lips, and improved facial aspect; and (5), when that organ has been congested, a marked diminution in the size of the liver. Furthermore, after a few days of systematic administration of the exercises there is usually observed marked, and often long-maintained diuresis. Pathologic effusions are often entirely removed.

Dr. W. Bezley Thorne says: "The results, in fact, are such as would scarcely be believed by any one but an eye-witness. It is by no means uncommon in cases of dilatation to see within one hour the oblique long diameter of the heart's area of dullness diminish by from three-quarters of an inch to an inch and a quarter, and, perhaps, more surprising still, to observe a diminution of as many as two inches, in vertical measurement, of a liver, which at first extended to the umbilical level; and to hear the patient, at the conclusion of what cannot be described as an ordeal, volunteer the statement that a load has been removed from the precordia, that he breathes easier and more deeply, and experiences a sense of general relief. Such gains are not permanent, and in the time that intervenes before the next day's exercises or baths, as the case may be, the dilated and congested organs tend to their former size, but do not wholly relapse. A slight proportion of the

gain is held . . . until, as the result of treatment, perhaps at the end of a few weeks, the dilated heart and the congested liver have recovered their normal dimensions, or at any rate such contraction and compensatory power in the one case, and resolution in the other, as to make them practically sound."

As to the effect in cases of valvular lesions, it is stated that, in the course of the first few movements, a bruit, due to stenosis, is observed to be accentuated, but afterwards diminishes, as the peripheral resistance lessens. In our case, the accentuation of the bruit has remained, the sound at first having been but faintly heard, owing to the weakness of the cardiac muscle, and its greater audibility now being interpreted as a sign of increased muscular vigor. Indeed, it is urged, as a diagnostic merit of the method, that valvular lesions, previously unsuspected, may become recognizable by the development of murmurs during treatment. Murmurs, due to insufficiency other than that caused by actual lesion of the valves, are diminished in intensity, modified to duplication, and finally obliterated. In cases of early valvular lesions, the murmurs are said to disappear as the final result of treatment. The condition of the cardiac muscle has been so much improved in the long-continued cases that I have had under observation, that I can readily believe the statement that, in early cases, all traces of myocarditis are removed.

The counter-indications against the treatment in the entire range of chronic cardiovascular affections, are advanced arteriosclerosis, decided degeneration of the cardiac muscle and aneurism. Some of the conditions, earlier deemed counter-indications, are not now so considered. Thus, in the patient before you this evening, a quite advanced case of arterio-sclerosis, the exercises have certainly done much good. The only absolute counter-indications that remain

generally insisted on, are marked atheroma, as with pipe-stem arteries, and advanced cases of aneurism, in which clots might be loosened and emboli thrown out into the circulation. One should, however, be cautious until he has had sufficient experience to decide for himself. It might be very rash for me to apply the method in a case Dr. Schott might so treat with benefit.

Dr. Thorne states, that he has witnessed improvement amounting to practical or actual cure in cases presenting the physical signs usually regarded as indicative of the following affections: stenosis of either the aortic or the mitral orifice, stenosis of both, insufficiency of either or both, with attendant dilatation; dilatation consequent on myocarditis, on habitual hemorrhage, and on constitutional anemia; fatty heart (interstitial); weakened heart; congenital mitral insufficiency; patent foramen ovale; and angina pectoris of apparently both neurotic and organic causation. He adds, that "it is reasonable to assume that measures, calculated to diminish peripheral resistance, and to promote the nutrition and repair of the cardiovascular tissues must be applicable to, at least, the early stages of aneurism of the heart and great vessels."

The physiologic mechanism, by which this is accomplished, is, in brief, that the gently-resisted movements, carried out as described and demonstrated, dilate in turn the peripheral vessels in every section of the body, and distend the lymph-spaces; thus by employing for therapeutic purposes the pumping action of the muscles, relieving the veins and securing increased filling of the arteries and better emptying of the heart. In other words, there is increase of the volume of circulation in both arteries and veins, with better filling of the vascular system generally, including lymph-channels and lymph-spaces, thus affording a much larger peripheral area for the blood. The left heart is better emptied by

invitation of the blood out of the capillaries, the arterioles, the larger arteries, the aorta; while back pressure upon the left auricle being reduced, the right heart is relieved through the pulmonary circulation, and thus the veins are still further emptied, the congested liver often markedly diminishing in size. In effect the peripheral pump is substituted for the central pump of the circulation, and the latter being able to contract upon the lessened quantity of blood, now becomes able to do its work once more, and all this without the use of any drug. The treatment may, however, be supplemented by judicious medication, if necessary.

I have here careful notes of the case before us, which have been made by Dr. West. It will not be necessary to read them in full.

The patient, a widow, fifty-eight years old, came under observation at the Philadelphia Polyclinic on the second of October, 1896, having had influenza, of three weeks' duration, a year before, followed by dry pleurisy. For the past five years she has been subject to attacks of dyspepsia and nervousness. A good deal of mental disturbance had recently made her more nervous. In addition to the dyspeptic symptoms, she sought relief for dyspnea, constant, and increased on exertion, headache, vertigo and continuous palpitation of the heart which gave rise to a sound heard in the left ear. There is also at times a sensation of "stoppage" of the heart. While in high altitudes (Colorado), she was subject to fainting spells. On examination, the heart was found dilated and displaced to the left, the apex-beat being in the sixth inter-space, one inch to the left of the nipple. Both sounds were feeble, the second being relatively accentuated. There was a faint, harsh systolic murmur, heard best at the aortic cartilage, and feebly transmitted into the neck. The pulse was small, feeble, its rate 96, with the patient standing, the artery somewhat hardened. There was occasional intermittence. Small quantities of albumin and granular and hyalin casts were found in the urine. There was no edema.

Under treatment, the heart has receded

until the apex, from being one inch to the left of the nipple, is now permanently half an inch to the right of the nipple; and from the sixth inter-space it has receded into the fifth. The sounds are stronger, the first markedly so, and the murmur is more distinct, though perhaps softened in quality. Intermittence has ceased. The artery is larger, the beat fuller and slower, the record of to-day being 68, with the patient seated. The sphygmographic tracings, which I exhibit, and which were taken before, immediately after, and ten minutes after the exercises on a number of occasions, the pressure being but slightly varied as recorded, and the instrument and the observer being the same in each instance, show the great improvement in the fulness of the arteries and in the character of the beat. For instance, at the beginning of treatment, there was scarcely any elevation of the lever, and the tracing is markedly that of rigid, unfilled arteries—the tidal wave being wanting. This may be contrasted with the recent tracing, in which the pulse is beginning to resemble a normal pulse, the elevation being, however, less than normal, and the tidal wave still obscured; for, of course, we have not given the patient new arteries. The patient has lost her unpleasant symptoms, except that there is still a slight noise in the ear. In especial she has lost the extreme depression and dread of suffocation, which was the most distressing feature of the case.

The albumin has disappeared from the urine, and I find that similar cases are also recorded by Dr. Schott and Dr. Thorne.

In another Polyclinic case, one of mitral regurgitation and interstitial nephritis, the albumin was markedly diminished, but did not entirely disappear. However, the patient felt so much better, her edema having gone, and her dyspnea being relieved, that she declared she was well, and went back to work. For this reason, I was unable to bring her before you this evening.

In conclusion, let me say that this is but a preliminary communication, to call your attention to the subject; in the effort to atone as much as possible for my long neglect of the method, by doing my share to make its merits more widely known. From reading and my limited observation, I believe the Nauheim system to be one of the greatest advances in

the line of therapeutics without drugs that has yet been made; worthy to rank with Brand's cold-bath treatment of typhoid fever, and the pneumatic treatment of pulmonary

tuberculosis. Like these, it is more troublesome than the writing of prescriptions, but, in suitable cases, much more effective.

TRAUMATIC PERFORATION OF THE MEMBRANA TYMPANI.

BY LEWIS S. SOMERS, M.D., Philadelphia, Pa.

THE following case is reported on account of the unique method resorted to by the patient to relieve his impaired hearing and also to show nature's mode of healing a traumatic perforation of the membrana tympani.

W. D., male, age 53 years, a phlegmatic German, was seen November 10, 1896, complaining of pain in the right ear and diminished hearing. On questioning it was ascertained that his hearing had been progressively diminishing for a number of years and on the advice of a friend he had taken a splinter of bone with a sharp point and pushed it into his right ear. This procedure was followed by intense pain and total deafness on that side; the pain was described as sharp and constant in character, preventing sleep for several nights, then gradually growing less severe, although continuing for a period of four weeks.

Aural examination showed both tympanic membranes to be much retracted and thickened and on the right side a central perforation existed immediately below and posterior to the umbo, being therefore in the posterior inferior quadrant of the drum. The perforation was clean cut, about one millimeter in diameter and irregularly oval in shape. Through it could be seen the mucous membrane of the middle ear and for a short space around its edge was a border of clotted blood. There was a moderate amount of congestion of Shrapnell's membrane and another area of congestion over the short process of the malleus. This latter area of congestion had been brought about by the pressure exerted by the splinter of bone forcing the tympanic membrane inwards and increasing the pressure on the chain of ossicles, jamming them together, thereby forcing the short process of the malleus against the drum head and retaining it in that position. By the use of the Siegle otoscope the membrane was drawn outwards

from the middle ear and the ossicular chain relieved from its increased pressure. This was followed by an immediate increase in the hearing distance and relief from the pain, which, though moderate, was still present. A plug of cotton was placed over the external auditory canal; the nares and pharynx were cleansed with an alkaline antiseptic solution and within a week cure was complete, a small firm cicatrix alone remaining.

After ascertaining by visual inspection the extent of the injuries in these cases, it is important to remove any pressure on the ossicle, that may exist and to prevent infection of the middle ear. Each case must be treated on its own merits and as far as possible non-interference with the healing processes should be observed. If a blood clot is present over or around the perforation it should not be disturbed except when the middle ear is already infected, the case being then treated as an ordinary otitis media suppurativa. We have two points through which the ossicles may be repositioned to their normal position; either through the external auditory canal or Eustachian tube, the former being far preferable as there is no danger of infecting the middle ear and the drum head is under our visual control.

When the membrane is thickened and retracted and at the same time the Eustachian tube is impervious to the passage of air from the naso-pharynx, as was the condition in this case, an artificial perforation of the drum head by equalizing the intra-tympanic pressure, will frequently increase the hearing. To a certain extent this took place here, but on account of the force exerted by the unskillful attempts of the patient to relieve the deafness, the damage to the parts was increased, inasmuch as the stapes has been forced into the oval window, so preventing the proper conduction of the sound waves to the inner ear.

THE PHILADELPHIA POLYCLINIC

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PHILADELPHIA, MARCH 6, 1897

EMILE ZOLA AS A DEGENERATE.

WHATEVER may be the view held as to the merit of Nordau's "Degeneration," it has widened to a large extent the discussion of the subject and focussed attention on the principles advanced by Lombroso and his school. The charge made by Nordau, that Zola exhibits the stigmata of degeneration, has been taken up by a French physician, Dr. Toulouse, who is chief of clinic for mental diseases at the Medical Faculty of Paris, and publishes his results as a medico-physiologic inquiry into the relationship between intellectual superiority and neuropathy. We have not the original essay before us, but an extended criticism of it by Lombroso (*Medical Week*, January 22, 1897).

Dr. Toulouse has conducted his investigations in a strictly scientific manner. He has not indulged in mere invective or ridicule, as have so many of Nordau's critics. Zola's ancestry is carefully studied. He is shown to be of mixed blood and his mother to have been rather neurotic. Zola himself had an attack of "brain fever" (whatever that may be) in early childhood, which left some defect

of speech and muscular co ordination. There was early development of sexual impulses. He was not an intelligent school-boy, having failed in several of his examinations. Incidental to criticism on this point Lombroso remarks that the conditions of school life are not favorable but inimical to the development of genius. We can agree with him in this. Dr. Toulouse finds that Zola's height is 1.705 meter, while the extreme distance between the tips of the middle fingers is 1.77 meter. In men whose duties involve overstrain of the arms this disproportion might be expected, but in Zola's case it is regarded by Lombroso as a sign of degeneration. Excessive length of the arm is rather frequent in criminals. Zola's face exhibited numerous frontal wrinkles at the age of six years; his ears are sessile and rather long, which are all regarded as signs of degeneration. We pass over numerous data regarding the special senses and take up discussion of Zola's sexual impulses. Here there is an almost brutal frankness of discussion, which must make rather interesting reading for the subject thereof.

Following the line of investigation that has been presented so elaborately by Von Krafft-Ebing, we are informed that sexual psychopathy is clearly marked, evinced by the evolution of erotic images by odors in general and by the sight of articles of women's clothing. For proof of this, quotations from his novels are given, showing the frequent allusions to objects of this class. Lombroso complains that in conducting the investigation in this phase of character the proper test was not made. The tendency to exaggeration is also regarded as evidence of degeneration. Zola "attributes to lifeless objects, a fantastic life, transforms them into spectres, possessing feelings, will, cunning and thought, while human beings are changed into automatons."

We have given here an abstract of some of

the points presented by Lombroso in a long article. Only the striking features have been set forth; there are many details. The whole article is interesting, especially as it is a concrete presentation of Lombroso's theories. Even those who entirely disagree with him will admit that his method is essentially scientific, and if genius be correctly defined as "an infinite capacity for taking pains," the workers of the Lombroso school show genius. It would be interesting to know if Lombroso could prove his own degeneration!

One thought suggests itself to us, and that, how far are the stigmata of degeneration common to all men? Will it not be possible to find as many of these evidences associated with orderly, commonplace individuals as with criminals on the one hand and men of mark on the other?

H. L.

softened and practically converted into pus in nearly its entire extent. There were several small infarcts in branches of the mesenteric artery. On both cusps of the mitral valve were found great masses of vegetation with a quantity of recent adherent clot. There were large granulations on the inter-coronary and posterior coronary cusps of the aortic valve. The liver showed cloudy swelling, and the spleen many infarcts, yellow and softened in places. The kidneys likewise contained infarcts. Cultivations from the blood of the heart, from the spleen, and from the vegetations upon the valves, showed streptococci. The clinical features of greatest significance were the rapid and progressive dilatation of the heart, with alteration in the original murmur, and development of fresh murmurs, and the evidences of embolism.

S. S. C.

Editorial Note

Infective Endocarditis Following Influenza.—The rarity of reports of malignant endocarditis following influenza gives importance to the record of a case under the care of Dr. Gee, at St. Bartholomew's Hospital, communicated to *The Clinical Journal* for February 10, 1897, by H. M. Tickell. The patient was a wheelwright, aged 33, who, some four months previously, had had an attack similar to the one for which he was admitted to the hospital. It began with diarrhea, pain, and vomiting, no abdominal lesion being discoverable. Cardiac dulness was slightly increased to the left, and a soft systolic murmur was audible at the apex. The patient had a number of rigors during his stay in the hospital, and there was clinical evidence of plugging of the arteries of arm and leg. The patient died about three months after admission. Both axillary arteries were found to be plugged where the brachial begins. The right common iliac artery was plugged for its whole length; the plug being

Current Literature

The Preparation of Blood for Microscopic Examination.—In the preparation of blood for study in the dry state, Piffard (*Medical Record*, October 17, 1896, p. 544), recommends the selection of carefully ground and finished slides of proper size (76 mm. by 26 mm.) and of medium thickness. He prefers round cover-glasses, the most convenient size being $\frac{3}{4}$ inch or 18 mm. in diameter and of sufficient thickness (0.17 to 0.20 mm., Nos. 2 and 3). The covers are cleaned by dropping them one by one into a glass dish partially filled with a solution consisting of potassium bichromate, 1 ounce, sulfuric acid, 1 ounce, water, 9 ounces, and leaving them immersed for twenty-four hours. They are then washed several times with water, next removed one by one to a dish containing distilled water and finally transferred singly to alcohol (preferably methylic), in which they may remain until needed. A convenient instrument for making the puncture necessary for drawing the blood is a small, straight surgical needle, which may be made from an alloy of one part of iridium and two parts of platinum. When needed for use the needle is sterilized at white heat and again after

being used. The blood for examination may be obtained from the tip of a finger or from the lobe of an ear thoroughly cleansed. In making preparations a sufficient number of cover-slips are removed from the alcohol and thoroughly dried. One is seized with a self-closing forceps and kept in readiness. When the puncture has been made a second cover is applied with forceps to the droplet of blood as it issues from the wound and then placed upon the first. As soon as the blood has spread between the two slips the projecting edges of the upper are grasped between the thumb and index-finger, and the covers are gently slid apart, care being taken to keep them parallel until entirely separated. The two covers, films up, are now placed upon a piece of paper to dry, and a second pair of slips are prepared in the same manner. If it is desired to fix more than four covers a second puncture should be made. When the films are dry the slips may be placed in a small envelop and appropriately labeled. If kept in a dry place they will remain unchanged for a long time. It is better, however, to fix them immediately. Fixation may be effected by exposing the covers for several hours to a temperature of between 120° and 130° C., either on a metallic place supported over a flame, or in an oven or a thermostat, or by immersion in equal parts of absolute alcohol and ether. In case of haste the slips may be exposed for a few minutes to the fumes of a 2 per cent. solution of osmic acid. For most purposes double staining with eosin and methylene-blue is all that is necessary. Of the former one gram of that supplied by Grüber is dissolved in 25 c.cm. of alcohol; after standing for twenty-four hours an equal quantity of distilled water is added. Of Grüber's rectified methylene blue 0.50 may be dissolved in 50 c.cm. of a 5 per cent. solution of formalin. The upper surface of each of the prepared and gradually and thoroughly cooled slips is covered with the solution of eosin, which is permitted to remain for two or three minutes, and is then washed off with distilled water. The slips are dried and the solution of methylene-blue is applied in the same manner. Again dried, the slips are ready for preliminary examination. This, it is recommended, should be made with a dry lens, preferably a $\frac{3}{8}$ or $\frac{1}{16}$ -inch objective, the cover-slip being

placed directly upon the slide without the intervention of any other medium. If this examination does not give the desired information, or if it be wished to use the higher-power immersion-lens, it will be necessary to attach the cover permanently to the slide. This is best done by spinning, by means of a turntable, a thin ring of shellac or other suitable cement upon the slide, and in a few minutes a second coat if needed. After drying for twenty-four hours slide and cover are gently warmed and then brought in careful and proper apposition. Finally when cool a fresh ring of cement may be spun around the cover-glass, so that it is sealed at every point.

A. A. E.

In the Clinics

Under the Editorial Charge of DR. OAKLEY W. HERMANCE.

IN referring to the remark of one of the clinic patients, Dr. Cantrell stated that the best means for lodging-house keepers to rid their beds of *pediculi* was to soak the bedding materials in the following solution:—One ounce of the fluid extract of staphisagria to a quart of water, and to apply the same solution to all the crevices of the bedstead.

* *

A FAVORITE prescription for the numerous cases of acute and subacute *bronchitis* applying at the clinic of Dr. Eshner is constituted as follows:

Take of

Ammonium chlorid 3 drams.
Compound sirup of squill . . 4 fluidrams.
Sirup of senega,
Sirup of tolu, of each sufficient
to make 3 fluidounces.
Mix.

DOSE.—A teaspoonful every three hours.

If irritative cough be present, from fifteen to thirty minims of camphorated tincture of opium may be added to each dose, or substituted for the sirup of squill. If secretion be excessive the same quantity, or rather less, of tincture of hyoscyamus may be given.

* *

OPERATION FOR CICATRICIAL CONTRACTION OF THE JAW.—Dr. Thomas S. K. Morton, at

a late meeting of the Surgical Section of the College of Physicians, reported the case upon which he had operated before the Polyclinic class, of a young man who, eight years previously, was firing a fowling-piece, when it exploded and tore open the left side of his face, including both lips and the cheek up to the zygomatic process. The entire buccal cavity was laid open upon that side, making a huge wound. This finally healed, leaving his lips some half inch apart at the left outer angle. An enormous cicatrix bound the two jaws together like an iron strap, his mandible having remained fixed in firm contact with the upper maxilla for several years; he having been nourished during that time on fluids, never having seen his tongue, nor been able to take solid foods. The cicatrix was extensive, binding the entire left lateral portions of the upper and lower jaws together. The reporter determined to excise the left outer angle of the mouth, where the lips were wide apart; to attempt to remove the cicatrix from the jaws; to pry them open if possible, and then to unite the lips in a more presentable shape. All of this was accomplished, but the quantity and density of the cicatricial tissue were almost incredible. The jaws were forced open with pliers to the extent of one and a quarter inch; the great mass of cicatricial tissue was cut away from its attachment to the bones, while that portion involving the lips and angle of the mouth was dissected out. This permitted accurate suturing of the freshened lips. At the end of three or four days the sutures were removed and another attempt was made to separate the jaws with the pliers. This proved successful in getting the jaws apart, but the wound partially separated out on the cheek. Fortunately, the lips did not separate where sutured. Quite a hole, perhaps half an inch in diameter, opened into the mouth, but subsequently closed by granulation.

His local physician, some months after

operation, had reported that he was easily able to maintain the movement and full separation of the jaw by daily use of the pliers, and could partake of solid food. The wound had united firmly, and his personal appearance had been much improved.

New Publications

SPEAKING of the munificent bequest of the Swedish engineer, Alfred Nobel, whose name is known wherever dynamite is used, as the Thor Hammer of Modern Industry, the *Review of Reviews* says:

"The interest annually accruing from this magnificent endowment of science, medicine, and peace, say about \$300,000, is to be divided into five portions, to be awarded in prizes, for the most important discoveries in (1) physics, (2) chemistry, (3) physiology or medicine, respectively; (4) for the most distinguished literary contribution in physiology or medicine; and (5) for achieving the most, or doing the best, to promote the cause of peace. The competition is open to all the world, and the adjudicators will have no easy task. Just imagine the difficulty of deciding who best served the cause of peace in 1896! We should be inclined to back Secretary Olney for that prize. But that is a detail. The important thing is that here we have a millionaire of munificence who has struck out for himself a method of endowment which is neither ecclesiastical nor educational."

The Laryngoscope, published in St. Louis, has been selected as the official organ, for the year 1897, of the Laryngological Section of the New York Academy of Medicine.

BOOKS RECEIVED.

ANNUAL REPORT of the Board of Regents of the Smithsonian Institution, showing the Operations, Expenditures and Condition of the Institution to July, 1894. 8vo, pp. 770. Washington. 1896.



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THE PHILADELPHIA POLYCLINIC

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A BRIEF REPORT OF THE RESULTS OF A BACTERIOLOGIC INVESTIGATION OF THE NASAL MUCUS IN ONE HUNDRED CASES OF CHRONIC NASAL DISCHARGE, WITH SPECIAL REFERENCE TO THE PRESENCE OF THE KLEBS-LOEFFLER BACILLUS.¹

BY EUGENE LARUE VANSANT, M.D.,

Professor of Diseases of the Throat and Nose in the Philadelphia Polyclinic; Laryngologist to Howard Hospital.

ALTHOUGH a full report of the following investigations will be published later, it may perhaps be of interest to those present to hear a brief report of the results obtained. The patients included in the investigation all had one thing in common, namely, a chronic nasal catarrh; none of them was subject to any acute febrile affection, but all were simply the walking cases that I see daily in my office and at my service in the Polyclinic and Howard Hospitals. Great care was exercised in their examination to exclude all that showed any of the well-known clinical signs of diphtheria. The bacteriologic examinations were made by Dr. W. J. Gillespie, and, in the more important cases, were afterwards reviewed by myself. The examination embraced 113 cultures of specimens taken from 100 different patients. Of these patients, twenty-five suffered with chronic atrophic rhinitis; thirty one, with chronic hypertrophic rhinitis; fourteen, with chronic rhinitis; sixteen, with chronic purulent rhinitis; seven, with nasal syphilis; two, with disease of the accessory sinuses; four, with acute rhinitis; one, with fibrinous rhinitis.

The bacteriologic examination shows the presence of diphtheria bacilli in no less than thirty of the cultures examined, these cultures representing the discharges found in twenty-six different patients. In four additional cultures (obtained from three patients), organisms closely resembling diphtheria bacilli were present. In fifty-eight cultures, staphy-

lococci were found. Of these, seven were recognized as staphylococcus aureus; five as staphylococcus albus; one as staphylococcus citreus. The great majority of the cultures contained many diverse forms of organisms, such as bacilli, cocci, diplococci, etc. Lep-
tothrix was found in four, bacillus subtilis in six, and yeast-cells in two of the cultures.

Of the twenty-six patients with diphtheria bacilli in their nasal secretions, eleven were cases of chronic atrophic rhinitis; three were cases of chronic purulent rhinitis; five were cases of chronic rhinitis, three were cases of nasal syphilis; one was a case of acute rhinitis, and three were cases of hypertrophic rhinitis.

For each disease examined, the number of cases with diphtheria bacilli was as follows:

Eleven of twenty-five cases of atrophic rhinitis; three of sixteen cases of chronic purulent rhinitis; five of fourteen cases of rhinitis; three of seven cases of nasal syphilis; one of four cases of acute rhinitis; three of thirty-one cases of hypertrophic rhinitis; none in two cases of disease of the accessory sinuses; none in the one case of fibrinous rhinitis.

The following clinical histories were obtained in some of the cases in which diphtheria bacilli were present:

John McM., aged 16, a store-boy, consulted me in November, 1896, complaining of nasal obstruction and muco-purulent catarrh, with post-nasal dropping. He stated

¹ Read before the Philadelphia County Medical Society, January 27, 1897.

that the catarrhal symptoms had existed for about six months; but, although his general health had been below the usual standard, at no time had there been fever or symptoms of any acute disease. Upon examination of the nose, it was seen that the cartilaginous septum was deflected to the right, producing stenosis, with marked obstruction; while on the left side, the lower turbinal was hypertrophied. Both nasal chambers contained considerable muco-purulent secretion. There was also a chronic granular pharyngitis and some slight enlargement of the tonsils. Cultures were made from the nasal secretion, and the bacteriologic report was that it was almost a pure culture of diphtheria bacilli. Upon investigation it was found that a younger sister of the patient had had diphtheria four months previously, and, furthermore, that different members of the family (which comprised ten children whose ages ranged from a few months to nineteen years of age) had all suffered more or less from nasal catarrh and sore throat during the summer and autumn. This information led me to decide to make further examinations. Six members of the family were examined and cultures were taken from their nasal chambers, with the following results: One, a school-girl of eight, was found to have chronic purulent rhinitis, with muco-purulent secretion. Bacteriologic examination showed "a few diphtheria bacilli in involution forms." Another, a girl aged nine, was found to have chronic purulent rhinitis, with muco-purulent nasal secretion. Bacteriologic examination showed "staphylococci, numerous leptothrix threads, and numerous small bacilli." Another, aged eleven, also a school-girl, was found to have chronic purulent rhinitis, with beginning atrophy and muco-purulent secretions. The bacteriologic report was: "staphylococci and long, slender bacilli." A fourth member of the family, aged six, a school-boy, had purulent rhinitis, with beginning atrophy and muco-purulent nasal secretion; also subacute follicular tonsilitis. The bacteriologic report was: "large, heavily stained bacilli resembling diphtheria bacilli in form." The mother, aged forty, showed fibrinous rhinitis, with a thick, white membrane clinging to both sides of the septum, with muco-purulent nasal secretion; the mucous membrane of

the pharynx was reddened and congested, but free from pseudo-membrane. The bacteriologic report stated: "staphylococci and small irregularly stained bacilli." The mother relates that all of the children had been in good health previous to last July, but that since then they had been continually suffering from a catarrhal condition of the nose and throat. All of the children examined were weakly, listless and anemic, but at no time, during the past six months, had any of them suffered from an acute illness.

Lizzie C., aged 38, a mill-worker, sought relief for chronic nasal catarrh, complaining of the formation of crusts, with thick muco-purulent nasal secretion, the duration of the symptoms extending back many years. Examination showed an advanced atrophic rhinitis. The lower turbinals had completely disappeared; the middle turbinals were enlarged, congested and polypoid. The pharynx was dry and glazed, and its mucuous membrane atrophied, but no membranous deposit could be seen anywhere. The bacteriologic report was: "Typical culture of diphtheria-bacilli." Questioning and investigation failed to reveal the source of infection. The patient had no symptoms of any acute condition, and all the members of the family were well. This patient was kept under treatment for some months. Cultures were taken from the nasal mucus at different intervals, and, with the exception of a time when certain local treatment was being applied, the diphtheria-bacilli persisted. Each bacteriologic examination gave the same positive results.

Mr. P., aged 35, a grocer, consulted me six years ago, suffering from constitutional and nasal syphilis. The lower and middle right turbinal bones had been exfoliated. The left nostril was normal. The patient's health at the time was very poor, and he had lost forty pounds in weight. Appropriate treatment, however, soon restored him to his normal weight, his general health improved, and he discontinued his visits, except at long intervals. Last September he returned, complaining of poor health, with pain in the region of the frontal and ethmoid sinuses, and reported a loss of fifteen pounds in weight. Examination showed the right nasal chamber filled with crusts and muco-purulent secretion. The lower and middle turbinal

bones, as before stated, had been exfoliated. The chamber was very large, and some uncovered bone could be detected in the region of the ethmoid cells. Cultures were taken from the nasal chambers, and the bacteriologic report was: "A typical culture of diphtheria-bacilli." Inquiry revealed no source of the diphtheric infection. The patient was placed on active syphilitic treatment and again rapidly regained health. Cultures were made from time to time from the nasal mucus and diphtheria-bacilli repeatedly found.

Many of the other patients with diphtheria-bacilli in their nasal secretions gave somewhat similar histories to those just cited.

REMARKS.

It is not my intention to discuss in this paper the specific virulence or non virulence of the diphtheria-bacilli found in such a large number of these cases. Some experiments with cultures of several of the patients are about to be made upon animals, and may perhaps throw some light upon this point.

A number of interesting thoughts, however, arise upon contemplating the results already obtained by this investigation, and some of these may be said to be positively demonstrated. Thus, it would seem proved that in a large percentage of cases of chronic nasal catarrh, the secretions are infected with diphtheria-bacilli, staphylococci and other bacteria.

The importance of this fact in surgical procedures upon the nose, throat and adjacent parts, particularly the eye, is evident. Certainly the surgeon should precede such operations by a clinical and bacteriologic examination of the nasal chambers, and, when necessary, institute treatment to remove the nasal infection. Such treatment should include very strict disinfection of the nasal chambers, and I would state that in most cases I had no difficulty in quickly effecting this purpose, although for a permanent removal of the germs, treatment must be continued for some time, as in a number of cases, after stopping the local treatment, the diphtheria bacilli were found to return and were recognized in the cultures. The diphtheria-bacilli were chiefly found in cases of atrophic rhinitis, chronic purulent rhinitis and nasal syphilis—in other words, where a pathologic condition

of the nasal chambers, with altered and morbid mucous secretions, continues for a considerable length of time, thus offering a suitable soil for infection, not only by the diphtheria-bacilli, but by many other germs, as ascertained by the bacteriologic investigation. Now, it is well known that in such cases we frequently find several members of the same family affected with the same disease, and although certain inherited and acquired constitutional dyscrasie underlie such conditions, yet we are impressed with the great importance, not only of disinfection, but also of avoidance of infection to others. From this point of view, the common use of a handkerchief among the children of a family, such infected children sleeping with healthy ones, or the indiscriminate kissing of children, may be mentioned only to be unreservedly condemned.

In all the cases in which the diphtheria-bacilli were present, the patients were observed to be in ill health, being listless, pale and anemic. It was also observed that, after treatment was instituted, not only the local condition, but also the general health greatly improved. It may, therefore, be possible that in such cases there is a slight chronic toxemia caused by the nasal condition. Further, it is quite probable that such diphtheria-infected nasal secretions may account in part for the present wide spread of diphtheria—indeed, several instructive instances have come under my notice. It is to be hoped, therefore, that the proposed investigation upon animals to determine the virulence of the bacilli will aid in forming some positive decision. In conclusion, it gives me great pleasure to acknowledge my indebtedness to Dr. W. J. Gillespie, whose careful and painstaking laboratory work alone enabled me to collect the material for this report.

In referring to the treatment of *alopecia areata*, Dr. Cantrell stated that in the neurotic forms he had observed excellent results from the internal use of small doses of the extract of cantharides and strychnin in combination.

If you like THE PHILADELPHIA POLYCLINIC tell your neighbor and colleague about it. He would benefit by it too.

UNCOMMON AFFECTIONS OF THE EYELIDS.

By J. HOBART EGBERT, A.M., M.D., Ph.D., Holyoke, Mass.

I. PRIMARY VACCINE PUSTULE ON EYELID.—A short time ago, Mary A., eleven years old, came to the dispensary for treatment of a troublesome sore on her eyelid. The conditions presented were: An elevated ulcer, pustular in character, on the free margin of the right lower lid about half an inch from the external canthus; epiphora, swelling of eyelid and injection of conjunctiva. The ulcer extended about one-fourth of an inch along the ciliary margin, was about one-eighth of an inch wide, had a depressed center, and the cuticular surface adjacent to it was red and swollen. The patient complained of ocular and frontal pain. There was mild systemic disturbance, slight coating of the tongue, headache and slight elevation of temperature. According to the history obtained, a small pimple had appeared on the lid four or five days previously, had "festered" and, although frequently bathed with warm water, had continued to enlarge until the conditions just described obtained. The child thought she had scratched her eyelid, about a week before, at or near the same place now occupied by the ulcer, but it had apparently amounted to nothing. The appearance of the lesion at once suggested vaccine pustule. Upon inquiry it was ascertained that the patient had not been vaccinated since infancy, but that her little sister had been vaccinated about two weeks previously, and had had a very sore arm. The patient and the sister usually occupied the same bed. The diagnosis of "accidental vaccination of the eyelid" was made, the eye washed with a warm aqueous solution of boric acid, the lesion dusted with calomel, and yellow oxid ointment (yellow mercury oxid, 2 grains; vaselin, $\frac{1}{2}$ ounce) prescribed for local application. A saline laxative was also prescribed and rest within-doors enjoined. Under this treatment the inflammation gradually subsided and in about two weeks' time the lesion healed, leaving only a slight marginal scar on the eyelid with the permanent loss of four or five eyelashes.

Rutherford (*Quar. Med. Jour.* iv, part 4) recently reported a case in which a mother was inoculated in the eye and on the eyelids by contact with the pustule occasioned by

the vaccination of her four-months-old child. According to the report, the patient recovered without serious permanent injury.

II. PRIMARY SYPHILITIC LESION ON EYELID.—The following rare case—rare at least in its origin—came under observation somewhat more than a year ago. The patient, George N., a negro boy, five years old, presented, when first seen, the following conditions: At the external canthus of the left eye and including the outer portion of the free margin of the lower eyelid, was a small ulcer, having a concave surface coated with yellowish exudate; its outline was quite regular, and its edges were indurated and elevated above the surrounding tissue; both ocular and palpebral conjunctivæ were deeply injected, there was more or less epiphora, some photophobia, but evidently little local pain. The child appeared rugged and well-nourished and the teeth gave no indication of hereditary disease. The resemblance of the lesion to a primary syphilitic sore was at once observed, but a satisfactory history was not easily obtained. The father was said to be well, or "quite so," and the same was said of the rest of the family.

From the information given it was ascertained that the sore had been "coming" on the child's eye for three or four weeks. Further examination of the patient revealed the fact that the post-cervical glands of the neck were somewhat swollen, while the left parotid gland was somewhat sensitive to pressure. The lesion was treated with a 2 per cent. solution of silver nitrate; $\frac{1}{10}$ grain of calomel, in tablet form, was ordered to be given after each meal, and an antiseptic wash and ointment of yellow mercury oxid prescribed for local use. This case was kept under observation for some time, and proved to be syphilis. In due time mucous patches appeared in the throat, and the body was covered with a papular eruption. The lesion on the eyelid disappeared in regular order, and the boy is now apparently restored to health, although advice has been given to continue the anti-syphilitic treatment for some time to come. How the chancre came to be situated on the eyelid has never been satisfactorily explained.

III. "HORN" OF THE EYELID.—In the year 1892, Mr. J. S., aged 59, a resident of Polk Co., Missouri, consulted the writer concerning a troublesome appendage which was growing upon the lower lid of his right eye. The growth proved to be a cutaneous horn, nearly one inch and a quarter long, rounded at its free extremity and flattened toward the base. It was attached to the ciliary margin of the eyelid slightly external to its center and caused the lid to hang down in such manner as to expose its conjunctival surface. As a result of this eversion of the lid, the tears ran out upon the cheek, nictitation was rendered difficult, and both ocular and palpebral conjunctivæ were in a state of chronic inflammation. The growth had commenced as a small wart upon the margin of the lid and had reached this extensive development in less than two years' time. The horn was successfully removed by making a V-shaped incision about its base and closing with sutures the artificial coloboma of the lid thus formed. The conjunctivitis was then easily controlled and a radical cure effected. A similar case was reported by Dr. Henry Shaw, of Boston, in the *Boston Medical and Surgical Journal*, for February 11, 1869.

Current Literature

REPORT ON BACTERIOLOGY.

BY M. V. BALL, M.D.

Widal's Reaction with the Blood of a Fetus.—Charrier and Apert (*Report of Société de Biologie*, Dec. 26, 1896) found that the blood serum of a fetus 3 months old, the mother of which had typhoid fever and whose blood gave Widal's reaction, did not give the reaction, whereas the blood of the placenta did. Etienne, with the blood of a 4½-months-old fetus, was unable to obtain the agglutination which is characteristic of the reaction.

Widal and Sicard, however, claim to have found it in the blood of the young of a rabbit inoculated with Eberth's bacillus.

The placenta is supposed to act as a filter, preventing the toxins and the agglutinating substances from entering the embryo. If a lesion should exist in the placenta these substances might pass through.

[This theory would explain why the re-

ports of different investigators contradict each other.—Ed.]

The Diphtheria and the Pseudo-Diphtheria Bacillus.—E. A. Peters (*The Journal of Pathology and Bacteriology*, Dec., 1896). Four kinds of bacilli are distinguished:

- (1) *Long Pathogenic*, or the typical Klebs-Löffler.
- (2) Short pathogenic.
- (3) Short non-pathogenic (Hoffman's).
- (4) Long non pathogenic, resembling No. one.

The first are found in all cases of typical diphtheria. The second kind are rare, and usually in mild cases. Hoffman's is found in normal throats in catarrhal conditions and simple anginas and also in true diphtheria associated with the Klebs-Löffler. Louis Cobbett and G. C. Phillips, in the same journal and writing on the same subject, say that in a careful study of the various forms of bacilli found they have been unable to discover any certain way to distinguish the virulent from the non-virulent form except by animal inoculation. Both in the morphology and in the production of acid the forms are similar. An acid-producing non-virulent organism which resembles the true bacillus in the form of growth as well as in the microscopic picture has been found which cannot be distinguished except by animal inoculation. The non-acid kinds can be excluded by cultivation in an alkaline glucose broth, in which the bacilli change considerably in shape from the Klebs-Löffler.

[The subject is still very much in doubt. A. C. Abbott holds that the non-virulent form is the true bacillus degenerated or weakened, and that all degrees of virulence between the very pathogenic and the non-pathogenic are to be found. If non-pathogenic bacteria under certain conditions become pathogenic then the whole question of the separateness of species becomes unsettled again, and anthrax may be caused by *Bact. subtilis* and typhoid fever by the colon bacillus.—Ed.]

Catgut Sterilization.—R. Schaeffer (*Berliner Klin. Wochenschrift*, January 11, 1897). In criticising Saul's mixture of alcohol, water and carbolic acid, which has been recommended by Bergman and which is supposed to kill anthrax spores in five to

seven minutes, Schaeffer finds that the test was made with bouillon cultures which are not so apt to contain spores, that the threads were planted without washing them in water to remove particles of the antiseptic material, and that when he used the mixture, taking the above precautions, it failed to destroy anthrax spores even when employed for twenty-five minutes. Schaeffer recommends a solution of mercury bichlorid 0.5 to absolute alcohol 85, water 15. This mixture will kill the spores in five minutes. But no matter how aseptic the catgut might be rendered, subsequent handling during an operation may cause reinfection, and, therefore, the mere fact that the wound becomes infected or that a stitch abscess results is no reason why the catgut should be blamed.

Pathology of Infantile Diarrhea.—A. Baginsky (*Berliner Klin. Wochenschrift*, Jan. 11, 1897). In summer diarrheas of infants, the bacterial find is monotonously the same—three forms usual: *Bact. coli*, *Bact. lactis*, and a proteus variety. These bacteria are common residents of the intestinal canal and under the influence of a high temperature, and possibly other agencies yet unknown, they acquire virulent power. No specific cause for summer diarrhea has yet been discovered. The products of these bacteria, ammoniacal in their nature, cause inflammatory disturbances, which in turn bring about degeneration of the mucous membrane of the intestinal wall and allow the germs to enter the blood and lymphatics and through these to other viscera. Then the foreign bacteria which are present in the air and the milk when swallowed by the infant find a suitable soil for development and an easy way of entering the system, and thus produce a series of complications.

The Bubonic Plague.—A. Yersin (*Annales de l'Institut Pasteur*, vol. xi, January 25, 1897). Dr. Yersin, after much difficulty, was able to secure a patient, on whom he could study the effects of his serum, which had been obtained from a horse who had been rendered immune by inoculation with cultures of the plague bacillus. The serum acted very well, and of twenty-six cases tried later on, only two died—a mortality of 7.6 per cent., whereas the disease, if left to itself, is fatal in 80 per cent. of the individuals at-

tacked. The plague is originally a disease of rats, and by them is communicated to human beings. The microbe found, is a short bacillus, cultivated readily on agar and in alkaline bouillon, stained in the ordinary manner and decolorized by Gram's method. It is specific for the disease, and is found in the bubonic swelling in the lymphatics, liver and spleen, and in the blood in the graver cases, also in the dejecta. An inoculated rat, placed in a cage with healthy rats, speedily communicates the malady. Under bad hygienic conditions, where human beings lie crowded together on the ground, it is supposed that the rats, through biting, or through the dejecta, infect man. So far, Yersin has not attempted to immunize the natives against the disease. The disease is easily recognized and proves fatal in the course of three or four days. Under the use of the serum, the symptoms have been known to disappear in a few hours.

Selection

WHAT NEXT?

It is hard to persuade the average observer that the old-time self-respect and dignity of the profession is not going to the dogs. On all sides are we besieged with nearly every conceivable kind of compound, of uncertain character and parentage, claiming specific recognition in our *armamentarium medicum* on the ground of its legitimacy, certified to by Dr. So and So, who assumes to cater to the spark of self-respect yet remaining, by publishing formula, accompanied by the reservation that being of a delicate nature it had better be secured from the competent hands of the "discoverer."

These reflections are inspired by the receipt of an immense sheet filled with laudations and encomiums reproduced from the public newspaper prints, and exploiting the merits of a certain "cure" for almost all the ills of humanity. In addition thereto, and as if to fortify still further the claims set forth, there is included a reprint from the *Journal of the American Medical Association*, in which the editor of that admirable paper is placed in the unenviable light of apparently acting sponsor for the professional standing of the author of the great universal scheme of physical salvation.

But, it has ever been thus. The profession of medicine is a long-suffering truth-seeker, and in spite of codes, codicils and condemnations, the doors stand wide open to anything and everything that pleases to enter. As long as there are suckers there will be baits, and as long as there exists no mental bar there will be suckers. It really seems as if the dignified, self-respecting, independent and scientific practitioners could be gathered in a very small space.—*The Peoria Medical Journal*, March, 1897.

THE PHILADELPHIA POLYCLINIC

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PHILADELPHIA, MARCH 13, 1897

STUDIES OF THE EYES OF SCHOOL CHILDREN.

To an enquirer as to this subject asking for the Report of the Committee of the American Medical Association¹ and other papers with regard to it,² this letter was sent:

MY DEAR DOCTOR:—I send you some reprints bearing upon the subject of your query. If you have such work in contemplation, I would earnestly urge you to begin it advisedly and as a severe piece of drudgery, but worth doing well. We have had a surfeit of studies (?) with a prime advertising object, or with inadequate understanding of what can and should be done. Get the teachers to do the whole, if it is to be a slipshod investigation, like many put forward as made by specialists—in which not one-tenth of the scholars were even seen by the alleged examiner. Such work is an opprobrium to the profession and an obstacle to true hygienic progress. Scores well examined count for more than thousands slurred over and passed as normal, as I have often seen, with V. $\frac{8}{10}$ and H. 5-6 (in one eye), color-blind or with serious choroidal disease. With best wishes,

Yours very truly

¹ *Journ. Am. Med. Ass'n*, Nov. 16, 1896.

² *Trans. Penna. State Med. Soc.*, 1885, p. 265; *Am. Jour. Med. Sciences*, July, 1885; *Journ. Am. Med. Ass'n*, September, 1892.

It is here printed in the belief that this matter is growing into better recognition, and others may profit by its discussion. Already nearly 300,000 children in the schools have had their eyes examined; and yet the scientific value of most of it is little or nothing, and we are fortunate if the results have not been rather harmful. Hygienic or scientific value we have a right to expect from each such investigation; but how can either be gained when no attempt is generally made to learn whether the eyes are healthy or are suffering under the conditions (at home or at school) to which they are being subjected? Even the prime fact of vision for distance is rarely adequately tested; if apparently normal, no farther study of that individual is thought needful in many cases. It is argued that elaborate examination is not possible; that cursory tests will bring to light the cases in need of fuller study; and that these can be accurately examined only in the office of a specialist. At once a mercenary motive is imputed to the examiner—too often by his professional brethren more than the laity; and the whole matter falls under suspicion and soon is brought to an end. If not paid some honorarium for his labor, it is inconceivable to some minds that a man who is really competent would devote much time to work that did not directly promise a money return; and as no adequate honorarium is at all likely to be paid in these times, they think that they have clear proof of ulterior and baser motives for his undertaking. This must, unfortunately, be expected by each investigator in this field, and he must conduct himself most scrupulously if he hopes to live it down and carry through his examination and not find himself displaced by some rival who sees his way to coin advantage out of the matter.

If the labor is to be its own reward, the examiner will find his remuneration almost too abundant. It has been shown that, with

proper preparations, a fairly complete examination of both eyes of an individual can be made in from three to five minutes; but this is by most unremitting activity, and no examiner can do many hours of such work a day. The writer has studied fifty in three hours, and thought he had well earned a rest. After ten such days, though scattered, the work would pall on any appetite not insatiable; and an investigation embracing one thousand school children may be set as the limit for work pretending to be thorough. If not thorough, one such examination has probably as much value as a million. The examined pupil is unlikely to profit by it, rather misled by the verdict "not proven" in danger; and one has but to look at the summaries of the alleged studies on record, to see that few of such contradictory results can be accurate. They can be used to prove anything and really show almost nothing.

Many points of real scientific value remain to be settled by good investigations of eyes, thus representing the general juvenile population and presumably healthy—points but vaguely shadowed forth when the conflicting statistics are critically weighed; and much sound hygiene of the school and of the scholar can be helped on by proper studies in this important field. May we hope that many will think of it as it deserves; and, having weighed well the cost of participating in its trials and labors, will undertake to do their share in mitigating the evils of the present educational methods and other surroundings of the yet-undeveloped members of the community.

B. A. R.

Editorial Note

The Regeneration of the Blood.—As the result of an experimental investigation conducted in the Physiologic Laboratory of the Northwestern University Medical School,

Chicago, Hall and Eubank (*Journal of Experimental Medicine*, November, 1896, p. 656) have found that the blood of apparently normal animals undergoes considerable variations within physiologic limits. After a loss of blood, the regeneration is more rapid, if there has been a transfusion of an artificial serum. Regeneration after transfusion is less rapid during the first half of the period of regeneration than during the second half. The regenerative processes, once stimulated into activity, carry the blood, qualitatively, considerably beyond the established normal. The quantity of hemoglobin per volume of red blood-corpuscles is not constant. The volume of red blood-corpuscles varies as the product of the average volume of individual corpuscles and the number of corpuscles per unit-volume. When the number of the corpuscles increases, the size diminishes, and conversely. The quantity of hemoglobin varies in general with the number of red blood-corpuscles per unit-volume.

A. A. E.

The Laboratory.

Under the Editorial Charge of Henry Leffmann.

The Distinction between Nucleo-Albumin and Serum-Albumin. The substance designated as urinary mucin in many of the text-books is now regarded as entirely distinct in nature. The danger of mistaking this for serum-albumin, especially when the more delicate tests are employed, was alluded to in a recent note in this department (*THE POLYCLINIC*, February 20, 1897).

The most exact information on this point is due to Dr. D. D. Stewart, whose investigation as to the comparative reactions of serum-albumin and nucleo-albumin were published in the *Medical News* of July 14, 1894. He used all the albumin-tests then in vogue, and found that the most reliable test is that by boiling, and even that may mislead if certain precautions are not taken. Of the many

delicate tests, Stewart found that solution of picric acid—unmixed with any other acid—has the least reacting power with nucleo-albumin. With most of the reagents he found, however, that the action of heat, best obtained by immersing the tube in boiling water, would dissipate the precipitate or at least reduce it very much, except when metaphosphoric acid or the mixture of potassium ferrocyanid and acetic acid was used. With these the cloud remained, and could not be distinguished from that produced by serum-albumin. For this reason, Stewart regards these tests as unworthy of a place in the list of urinary reagents.

The experiments were made upon a sample of nucleo-albumin obtained from bile. Solutions in water, containing some sodium chlorid, and in presumably normal urine, were used. Incidental to the investigation he had occasion to note that the application of heat to the contact-tests, increases, in most cases, the delicacy of the reaction for serum-albumin, and assists the differentiation of it from nucleo-albumin. This, as noted above, is not to be done by heating the tube in the flame, but by immersing it upright in boiling water.

I call attention to these observations here, because they seem not to have received the consideration they deserve from text-book writers and contributors to current clinical literature. When extremely delicate tests for albumin are noted, the writers seem, as a rule, to disregard the possibility of nucleo-albumin as a fallacy. Some notice was given to the phase of the question when discussing Jolles' test and the salicyl-sulfonic acid test a few weeks ago (*THE POLYCLINIC*, January 30, 1897.) A urine, exceptionally rich in nucleo-albumin, (I was indebted to Dr. Stewart for the sample) was tested by both tests and no distinct reaction was noted; yet lately, testing solutions prepared by boiling commercial nucleo-albumin—from bile—in water

for over an hour, I obtained distinct precipitates with both Jolles' and the salicyl-sulfonic acid tests, which precipitates were almost entirely dissipated by immersion in boiling water, returning again on cooling. There is some discrepancy here which will be explained by further experiment, but it seems evident that the new tests are liable to the same fallacies as other extremely delicate tests.

Another source of fallacy arising from the use of trichloroacetic acid is the fact that some forms of commercial filter-paper impart to water a body which is coagulated by the acid. Hence the simple filtration of a sample of urine may give it the power to simulate an albumin reaction. Stewart found this effect to occur with the best grades of filter-paper. Other delicate tests, such as Millard's reagent, plain or citrated picric acid and tartrated mercuric chlorid, produced no precipitates with distilled water which had been passed several times through specimens of the different filter-papers. Some of the inferior filter-papers give marked results with Millard's reagent, as he has himself pointed out.

**

Effect of Asparagus on Urine.—Czolas (Abstract in *The Analyst*, December, 1896) states that the urine of persons who have partaken of asparagus gives a reaction with Fehling's solution, but no glucose is present. It is probable that a glucoid is present.

In the Clinics

Under the Editorial Charge of DR. OAKLEY W. HERMANCE.

DR. CANTRELL stated that he had met with many examples of *impetigo contagiosa* affecting the bearded skin of the male and so closely resembling *tinea circinata* that mistakes are very likely to occur if not carefully examined.

**

DR. S. SOLIS-COHEN exhibited to the class a marked case of *exophthalmic goiter*, in which dermatographism and factitious urticaria

could readily be produced. He advised rest, and prescribed tabloids each representing five grains of adrenal extract; one tabloid daily to begin with and the dose to be gradually increased to three or more *per diem*.

* *

DR. M. B. MILLER reports the case of M. N., colored, aged 24, who applied at the Polyclinic Hospital on February 19, 1897, with the statement, that he had injured the left side of his jaw by receiving a blow at that point while boxing. He complained of local pain in the neighborhood of the articulation, and stated that he experienced painful grating when moving his jaws.

Examination developed the fact that crepitus existed at a joint about half an inch below the articulating surface of the condyle of the left side. There was considerable tenderness at this point, but the swelling was immaterial. Examination within the mouth added no new features, as the point of fracture could not be reached. A diagnosis of *condyloid fracture of the inferior maxilla* was made, and the case was referred to Professor Morton for demonstration before the class. In commenting upon it, he stated that, in an experience covering many hundreds of fractures, he never saw a fracture of the jaw in this locality.

News Item

PSYCHOLOGY FOR NURSES. The first of a series of ten lectures to Nurses on "Psychology" was given on Friday, March 5th, by Dr. A. Ferree Witmer of the Nervous Department. These lectures are free to all pupils or graduates of hospitals, and are delivered in the hospital amphitheater of the Polyclinic at 8 P.M.

The opening lecture was devoted to an outlining of the course which will be made practical; charts, diagrams, drawings, photographs together with models and specimens of the human and ox brains will be freely used. A feature of the work will consist in pencil outlinings by each member of the

class on blue prints showing the different functions of the brain.

After this introductory followed the definitions, particular stress being laid upon the relationship of the mental process to the bodily state. The uses of psychology were defined as (1) an analytical examination of mental experience; (2) an attempt to discover how these elements combined; (3) the connection of mental with physical condition. The emotion of anger was cited as an illustration in which at least four distinct elements combined to form what is commonly known as a simple emotion.

While the study of psychology is largely a subjective one, yet attention was called to the external aids that we may use. Of these race psychology, child and animal psychology were considered under comparative psychology, while abnormal psychology or the study of mental pathology was instanced as affording valuable assistance.

An explanation of the drawings used in the demonstration closed the lecture.

BOOKS RECEIVED.

A PRACTICAL TREATISE ON DISEASES OF THE SKIN. For the use of Students and Practitioners. Fourth and Revised Edition. By James Nevins Hyde, A.M., M.D., and Frank H. Montgomery, M.D. Illustrated with one hundred and ten engravings and twelve plates in colors and monochrome. 8vo, pp. 808. Lea Brothers & Co., Philadelphia and New York. 1897.

ANNUAL OF THE UNIVERSAL MEDICAL SCIENCES AND ANALYTICAL INDEX. A yearly report of the Progress of the General Sanitary Science throughout the world. Edited by Charles E. Sajous, M.D., Paris, and Seventy Associated Editors, assisted by over two hundred Corresponding Editors, Collaborators, and Correspondents. Illustrated with chromo-lithographs, engravings and maps. Five volumes. 8vo. The F. A. Davis Co., Philadelphia, New York and Chicago. 1896.

THE YEAR-BOOK OF TREATMENT FOR 1897. A Critical Review for Practitioners of Medicine and Surgery. 8vo, pp. 488. Lea Brothers & Co., Philadelphia and New York. 1897.



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UNNA'S DRESSING.

BY C. E. IDE, M.D., Buffalo, N. Y.

THIS dressing, which I am about to describe, introduced by Dr. P. G. Unna, Professor of Dermatology, Hamburg, Germany, was brought to my notice while I was surgical interne in a large hospital which has an excellent skin clinic. To one who, in the course of hospital work as interne or externe, or visiting surgeon, in dispensaries and private practice, has struggled with such affections as chronic ulcers, chronic edema, chronic synovitis, or teno-synovitis following sprain, chronic eczema of the leg, and varicose conditions of the veins, especially as seen in the lower extremities, the dawning of the day which brought us this better treatment for these affections, was bright with hope and comfort and satisfaction. And this first glow has not proved to be fleeting, but rather the brightest expectations have been realized in the gratifying results which have followed its trial. Many a surgeon has declared the *bête noire* of his practice to have been chronic ulcers—I suppose because they are so everlasting and tiresome and uninteresting. Even though liberal remuneration was received in return for the fidelity with which these cases were followed up, still the time always came when they were gladly turned over to somebody else. Such had been my experience, and I can well remember the many patients, old and young, who had come to the hospital so faithfully and regularly, every second or third day, for years to have the same old ulcer dressed, the size of

which, after it had been reduced to a certain extent, always remained the same.

I began to use this dressing in cases of chronic ulcer of the leg, simple, varicose and syphilitic, and since then have adapted it to various other conditions, which will be mentioned later.

WHAT IS IT?

Unna's dressing, when completed, consists of a combination of Unna's mixture, or paint, as I have always preferred to call it, and gauze bandages in layers, the bandages forming the basis, the paint, which hardens as soon as it becomes cold, impregnating the gauze, and being built upon it. The paint is a white mixture which, when cold, resembles very closely the white rubber of which syringes, hot-water bottles, etc., are made. It is of a spongy, elastic consistency, and, when heated, becomes fluid. The formula, according to which it is prepared, is as follows: Gelatin, 4 parts; water, 10 parts; glycerin, 10 parts; zinc oxid, 4 parts. The gelatin and cold water are put together, in a basin, over a fire, and when the gelatin is thoroughly dissolved in water (there must be no lumps), the other constituents are added, the zinc oxid being added slowly and stirred in thoroughly. I always have mine made and poured into a quart pail to cool, in which I carry it about, keeping it covered. The zinc oxid is soothing to the skin, especially when the dressing is applied over a chronic eczema.

The gelatin gives the paint its adhesive quality, forms its basis, and imparts elasticity to the finished dressing, thus enabling it to exert an even compression. The glycerin has a dehydrating effect upon edematous tissues. Sometimes, as a result of this action, swelling is reduced very rapidly, fluid coming from the tissues and oozing through the dressing. Besides the paint, a supply of gauze bandages and a wide paint-brush are necessary. The gauze bandages can be made from cheese-cloth by drawing threads, and cutting along the line thus made. Two and a half inches make a convenient width for the bandages, and the brush which I use is three inches wide.

HOW IS IT APPLIED?

The dressing is applied as follows:—The limb is scrubbed with soap and warm water and, after being dried, is rubbed over with alcohol. When this has evaporated the limb is ready for the dressing. In the meantime, the pail of Unna's paint should have been placed over a fire in a hot-water bath, which can be improvised anywhere from a tin or agate basin. After the paint is melted it is ready to be applied; but *do not apply it too hot* or the patient will object strenuously. One should test the degree of heat by painting the palm of his own hand. I always remove the paint, with its hot-water bath, from over the fire when I begin the application, replacing it if it begins to harden before I finish. With the brush a layer of paint is applied all over the limb, with the exception of the ulcer (if one be present), and over this one layer of gauze bandage is placed in sections, as in any other case, with the one exception that it must be laid flat all the way. There is one rule which must be faithfully adhered to in the application of this dressing, and that is to *have no wrinkles at any point in the bandage*. Where the bandage begins to wrinkle we must cut it off and begin it flat

again. This is why I said above that the bandage is to be applied in sections. No section which is more than twelve or eighteen inches in length can be correctly applied. In applying the dressing to a leg, I always begin, after the first layer of paint, with a strip of bandage around the foot close to the base of the toes, just as a narrow strip is placed there in applying a plaster-of-paris bandage to the foot. A second strip is placed around the heel, the middle of which is at the point of the heel, and the ends of which reach to the outer and inner malleoli respectively. Another strip is applied around the heel a little above the first, but overlapping it somewhat. Still another is placed below the first on the bottom of the foot, but overlapping it, as did the second. The ends of these other two are brought together at the malleoli, so that they all radiate from the malleoli out around the heel at different levels. In this way the heel is covered in and then I return to the toes and cover in the foot and leg. In this dressing the bandage is entirely enclosed in the paint after it has hardened, giving it body or basis. A continuous bandage cannot be applied without the production of wrinkles. We can use a roller bandage, however, by pulling it fairly snug with the limb in a horizontal position, the heel resting on a chair or bench, and after as many turns have been made as can be without wrinkles, cut the bandage off and start again with the bandage flat. After each section is applied it is painted over with the brush. We must be sure that the bandage fits snugly, making even compression everywhere. If a weak spot is found, where the flesh seems to bulge, it is to be fortified with a piece of bandage covered with paint. In this manner apply two or three layers of bandage, preceding and following the application of each with a fresh application of the paint over the whole surface. After the last layer of gauze has been applied and painted over, the dressing

is covered with a cotton bandage which is left on for twenty-four hours, for the sake of cleanliness, and then peeled off. Under this is found a smooth dressing resembling white rubber, as mentioned above, which is elastic and comfortable and far superior to elastic stockings, each dressing being a perfect fit for the limb to which it is applied. The paint is then washed from the toes and from the skin above the upper edge of the dressing or stocking and the work is complete. Warm water will remove the paint from the skin or clothing or floor, or anything which is accidentally daubed with it.

This operation requires time and patience, but dexterity is soon acquired. It is a rather "dirty job," so that it is well for the operator to have on a rubber apron, and for the floor to be covered by a rubber sheet.

The dressing can be applied to the foot alone, or the foot and ankle and leg, or to the whole lower extremity. So also to the hand and upper extremity. The upper and lower edges of the dressing must not fit too snugly, or end too abruptly, otherwise there will be swelling above or below.

In cases in which there is much edema, it is advisable for the application of the dressing to be preceded by massage while the limb is elevated.

Where ulceration is present a wad of cotton is placed over the ulcer under which is made whatever application may be desired. In such a case when, in the course of the application of the bandage, the ulcer is reached, it is dressed and covered over with a flat piece of cotton and then the dressing is applied over that as though there were no ulcer present. All is left in this condition until the discharge from the ulcer has soaked through the dressing and become foul. Then a window is cut through the dressing, *just the size of the ulcer*. We begin the window by cutting a very small hole over the center of the cotton which covers the ulcer. This the

patient can always locate accurately. The small opening is enlarged by degrees until it corresponds exactly with the size of the ulcer. One may now treat the ulcer as often as indicated; but should not be in too much haste to cut the window. The even compression which presses the parts surrounding and including the ulcer together and places them at rest, does far more good than any application one might be using up to this point. Every twenty-four hours will see the edge of the ulcer nearer its center and farther and farther away from the edge of the "window."

This dressing has superseded the old rubber bandage, which should be thrown to the dogs, for it can but produce (vaso-motor) paresis of the capillaries of the parts over which it is applied. Unna's dressing is far superior to elastic stockings if the patient can afford to have one applied, say, once in six weeks or two months.

WHAT CAN IT DO?

The most important result which it brings about, from the patient's point of view, is relief from pain and production of comfort from the first. Many a patient has declared to me that the first good night's rest he has had for months, and in some cases for years, followed the application of the dressing. For the first day or two it will seem rather tight over the front of the ankle, but it soon stretches a little, the swelling under it disappears, and in two, or at the most three, days the patients walk with comfort, provided one cannot induce them to "lay up" and give the limb absolute rest for a time. When the patients can afford to rest it is far better to keep them in bed, or up and dressed with the limb elevated constantly. To this class belong the patients who are treated inside a hospital and in whose cases the most brilliant results are achieved. Those patients who cannot afford to give up all their time

to treatment can keep on with their work, and in such cases the improvement is constant and progressive and encouraging, though not so rapid as in the cases which can be kept under control all of the time. I remember the case of a butcher who stood on his feet many hours each day, and yet the improvement was steady. In the case of people who work during the hot summer weather, perspiration will soften the dressing around the foot and ankle, and so necessitate its renewal sooner than in cooler weather.

The most important result effected, from the surgeon's or dermatologist's point of view, is the support of the weakened tissues and blood-vessels, especially the veins, and the great improvement in the circulation brought about by the even and elastic compression. The veins are assisted in reassuming their suspended function. Feet which have been cold and blue for years, winter and summer, become comfortably warm and assume the natural pinkish hue. The tissues are dehydrated both by the action of the pressure and the glycerin. Fluids which have been exuded into the connective tissue are absorbed and carried away in the circulation, edema disappears, and the swelling goes down, the dressing becomes loose, wrinkles appear in it and it soon becomes so loose that it must be replaced by another. Sometimes this is necessary in three weeks, but the average time which the dressing has lasted in my experience is four weeks. I recall, however, the case of a hotel clerk with the alcohol habit, tertiary syphilis, slight cardiac dropsy of the legs, with a varicose condition of the veins, with now and then an attack of subacute phlebitis, in whose case I found it necessary to replace the dressing in less than three weeks during hot weather. When the skin is blue and there have been extravasations of blood from the rupture of small veins or venules, followed by ecchymosis and

discoloration by blood pigment, the venous blood is sent along, the pigment is absorbed and the skin becomes white and soft.

The dressing is soothing. The zinc oxid which it contains gives it this soothing quality, and, in addition to the support which it gives to the blood-vessels, it does away with the stretching of the nerves in the walls of the blood-vessels which causes the characteristic burning pain observed in cases of varicose veins.

The dressing also gives considerable support to the weakened arch of the foot we so often see in these cases.

In the case of joints which are weak following sprain or fracture, accompanied by synovitis or teno-synovitis, this dressing gives that assistance which is needed. It furnishes the same sort of support to the joint and its muscles as does the strapping which we place on a sprained ankle, according to Gibney's method, or over the back in a case of sprain of the spine or myositis of that region. I recall good results from its use after Colles' fracture. It has been my custom in this affection to remove the permanent dressing as soon as I dared replace it by a gauntlet of Unna's dressing. I apply the dressing to the hand, wrist and lower forearm in such cases (leaving out the thumb and fingers, of course), on the next day cutting through it along the radial border of the forearm and wrist and hand, covering over the cut edges with canvas sewed on, and inserting eyelets so that it can be laced up and removed each day for douching, massage, passive motion and electricity. I remember in one case of Colles' fracture, accompanied by a dislocation of two of the carpal bones, removing the splint on the tenth day, replacing it by an Unna's gauntlet, and by daily douching, massage, passive motion and electricity, obtaining a return of function in ten weeks. In spite of the fact that while the splint was on I kept the fingers free and flexed and moved

their joints every day, when the splint came off the wrist and hand and fingers were very stiff, the parts being bound together by strong adhesions. With the Unna's dressing on, after the fracture has united sufficiently, there is a little motion obtained which lessens the stiffness and which we could not have were the splint left on longer.

The dressing, by the compression which it makes and the improvement of the circulation which it produces, hastens the healing of existing ulcers. They grow visibly smaller

day by day. The pain which has been produced in them by the movement of muscles and tendons in walking is lessened or entirely done away with. The granulations in the ulcer are constantly pressed together, their organization and change into fibrous tissue being hastened, and the extension of the new epithelium over the top being surprisingly rapid. In place of a thick ragged edge we have an ulcer and surrounding tissues which are continuous on the same level.

[To be continued.]

AN UNCOMMON CASE OF OCCUPATION NEUROSIS.

BY J. W. McCONNELL, M.D.

Chief of Clinic and Instructor in Nervous Diseases, Philadelphia Polyclinic.

THANKS are due to Prof. Mills for the privilege of making a clinical report of the following unique patient of the clinic for Nervous Diseases of the Philadelphia Polyclinic:

A. D., a white, male, American, æt. 52 years, employed for twenty-one years as a brick sorter. He has never been a user of tobacco or alcohol, and his history, family and personal, is excellent. In 1894, after an idleness of some weeks, he resumed his occupation. The first day's work caused great discomfort in the interosseous tissues of the right hand, which discomfort later became pain and involved the whole hand, wrist and forearm of that side, as well as the left hand and arm. Labor increased the pain, and enforced rest for five months was the result. Under like circumstances he suffered with apparently the same condition in 1895, the trouble persisting for a few weeks. In July, 1896, a third very mild attack followed a spell of cholera morbus, involved both hands alike and disappeared in two weeks' time. The fourth, present, appearance of this disability was in December, 1896. Two weeks of idleness were followed by the new employment of brick-setter. A few hours of this work sufficed to cause pain and disablement of the right hand. The right wrist, forearm and arm, the left hand and wrist were involved in a very short time. A sensation as of a tight band about the right biceps developed and persisted until the next

day. The muscles about the right shoulder were somewhat paretic, the whole arm felt as if bruised. Some swelling was noticed at first, but soon disappeared. Improvement has been very slight. The physical condition of the patient at the present time is good. The arms are of good size; there are no visible signs of the trouble. There is no pain on squeezing or manipulating the hands, fingers or arms; no swelling, no paralysis or paresis, no changes in sensibility to pain, touch, temperature or position; no ataxia; reflexes are normal; electrical reactions unchanged. Attempts to perform such movements as are made in his occupation cause pain and muscular spasm in the hands, wrists, and forearms, so that he quickly releases the object with which he is experimenting.

The history of the patient, the knowledge of the work entailed by his occupation, the symptoms presented, the absence of changes in motion and sensation incline me to the belief that an occupation neurosis is the correct diagnosis. The case is, however, a very uncommon one, rare, in that both arms were affected simultaneously, and in the number of attacks which have been recovered from. Some hysterical element seems to be observed in the case, but it is hardly possible to credit that disease with the whole condition.

The prognosis is extremely doubtful. The man will certainly do better in another oc-

cupation, therefore such has been advised. Treatment so far has been general; strychnin, cod liver oil, preparations of malt, and of iron and manganese peptonates; with galvanism, systematic slow gymnastic movements and massage to the parts affected.

Current Literature

REPORT ON MEDICINE.

BY A. A. ESHNER, M.D.

The Antitoxin Treatment of Diphtheria.—According to the Berlin correspondent of the *British Medical Journal* (Feb. 6, 1897, p. 364), the annual report of the municipal hospital Friedrichshain, under the charge of Prof. Furrbringer, shows that during the year 1896 there were received 663 cases of diphtheria, all of which were treated with the antitoxin. In the previous year there had been 581 cases, only about half of which had been thus treated. In the year 1896 there had been 114 deaths, 17 per cent., as against 30.7 per cent. in the previous year. Tracheotomy was required in 161 cases, with recovery in 103, 63.9 per cent., as against 45.1 per cent. in the previous year.

The Diet of Typhoid Fever.—In making a plea for a less restricted diet in the management of cases of typhoid fever, BARRS (*British Medical Journal*, January 16, 1897, p. 125) contends that there should be no further departure from the normal diet of health than the disease itself enforces by the inevitable loss of appetite and impaired digestion of the pyrexial state. When a patient suffering from typhoid fever expresses a genuine desire for solid food, and his expressed desire is confirmed by his physical condition, he may be given such food as he can take, especially meat. It is not to be suggested, much less insisted, that a patient with a dry, baked mouth, semi-delirious and probably loathing even milk, should be fed upon beef-steak. Such a proceeding would be as ridiculous and unjustifiable as to insist that a man who, with a clear mind and a full appreciation of his condition, says he is craving for solid food, should be refused it. The mode of feeding under consideration has to commend it the fact that it involves the least departure from the normal line of health, but besides it appears to modify favorably the death-rate of typhoid fever, to shorten

convalescence, to diminish the risk of complications and sequelæ, and generally to make the disease a less formidable and more manageable one than it is under present standard methods of treatment. The foregoing statements are based upon an experience with thirty-one cases of typhoid fever during a period of three years, with three deaths, all in cases in which solid food could not be given. True relapse occurred in two of the cases.

The Treatment of Pulmonary Tuberculosis with Piperidin Guaiacolate.—CHAPLIN and TUNNICLIFFE (*British Medical Journal*, January 16, 1897, p. 136) have been led by the success attending the treatment of pulmonary tuberculosis with creosote and its derivatives, especially in the early stages, to use a newly synthesized body, piperidin guaiacolate—a compound formed by the action of piperidin on guaiacol in a suitable solvent, such as benzol or petroleic ether. Its chemic formula is $C_8H_{11}NC_7H_5O_2$ and it crystallizes in prismatic needles or plates. It is soluble in water and most organic solvents, and it melts at $79.8^\circ F$. It is decomposed into its constituents by mineral acids and alkalies. The drug has been employed in the treatment of eight out-patients and six in-patients of the City of London Hospital for Diseases of the Chest, the duration of the observations averaging six weeks. The initial dose employed was 5 grains thrice daily, increased gradually to 20 and 25 grains. The agent was well borne and no unpleasant effects were observed. In many cases the cough appreciably improved in the course of treatment. The temperature was in no case affected adversely; in most cases it receded to the normal. The appetite was for the most part maintained and very often patients expressed the belief that the medicine improved it; in some cases it seemed that the drug had a markedly good effect upon the appetite. Some of the patients gained in weight, and in two instances it was thought that more flesh was put on than would have been the case had ordinary remedies been employed. The expectoration diminished in most cases. Among the out-patients especially, there was a general improvement in strength and vitality. Little change could be noted in the physical signs and this was on the whole of a retrogressive character.

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PHILADELPHIA, MARCH 20, 1897

THE ADULTERATION AND SUBSTITUTION OF DRUGS AND MEDICINES.

ASIDE from the sick themselves, no classes of men are more interested in securing proper legislation for the protection of the sick against the dangers of incompetency and fraud in the preparation and dispensing of drugs and medicines, than are physicians and pharmacists. Unfortunately there are some such who are ever ready to violate moral obligations for undue gain, and the only way to secure adequate protection is for the State to enact proper legislation.

It is to be regretted that much of the pharmaceutical legislation in this direction in the past, has been loosely drawn, from a legal point of view. A law may be morally good and legally bad. Those who have framed such legislation have wilfully or ignorantly made it of such weak legal construction that conviction for violations under it have been difficult.

The Pennsylvania State Pharmaceutical Examining Board, having experienced the legal deficiencies of the State law, has had prepared a new act "to prevent the adulteration, alteration and substitution of drugs and

medicinal preparations, and providing penalties for violation thereof," which is to be offered in the State Legislature. The act reads as follows:

AN ACT to prevent the adulteration, alteration and substitution of drugs and medicinal preparations, and providing penalties for violation thereof.

SECTION 1. Be it enacted, etc., That no person shall within this State manufacture for sale, offer for sale, or sell any drug which is adulterated within the meaning of this Act. The term drug used herein shall include any medicinal substance or any preparation authorized or known in the "Pharmacopeia of the United States," or the "National Formulary." A drug shall be deemed to be adulterated within the meaning of this Act

(1) If any substance or substances have been mixed with it so as to depreciate and weaken its strength, purity or quality.

(2) If any quality, substance or ingredient be abstracted so as to deteriorate or affect injuriously the quality or potency of the said drug.

(3) If any inferior or cheaper substance or substances have been substituted in whole or part for it.

(4) If it is an imitation or is sold under the name of another drug.

(5) If the drug shall be so altered that the nature, quality, substance, commercial value, or medicinal value of it will not correspond to the recognized formulæ or tests of the latest edition of the "National Formulary" or of the "Pharmacopeia of the United States" regarding quality or purity.

On complaint being entered, the State Pharmaceutical Examining Board is hereby empowered to employ an analyst or expert chemist, whose duty it shall be to examine into the so-claimed adulteration and report upon the result of his investigation, and if said report justifies such action, the Board shall duly cause the prosecution of the offender as provided in this law.

Whoever violates any of the provisions of this Act shall be guilty of a misdemeanor, and upon conviction shall be fined a sum not exceeding one hundred dollars nor less than fifty dollars, or undergo an imprisonment not exceeding ninety days, nor less than thirty days, or both.

All laws or parts of laws inconsistent herewith are hereby repealed.

This proposed legislation is strong legally. The definitions are explicit, and the limita-

tion of the term drug to include only those substances recognized and described by the latest editions of the United States Pharmacopeia and National Formulary, is wise, for the reason that too much is not attempted. If such legislation be enacted, the sick will be protected in the most important classes of drugs and medicines used, and legal convictions for violations will be made more easy than if the law was made more general in scope. Later, when this legislation has shown its public worth, additional and more general legislation can, doubtless, be had. Other features of the proposed act have evidently been the result of careful, considerate thought, and the measure, in our opinion, is one deserving of the cordial support of every physician and pharmacist anxious for the best interests of the public.

J. W. E.

Editorial Note

Every-Day Doctors and Great Men's Doctors.—*Le Progrès Medical* amusingly comments upon a popular medical "conference," remarkable for its incoherence, by the famous Dr. Schweininger, Bismarck's physician. It observes that the characteristic physiognomy of the private and proprietary conservator of great men's healths is something *sui generis* and well-known.

Dr. Schweininger is something more: witness the following discourse to the astonished Berliners: After reviewing the different sects in medicine, he finds none to prefer to the exclusion of the rest and none to be wholly condemned, but esteems them all of equal value. If consulted in regard to any medicament, he replies, "make haste; use it while it is still effecting cures." Two classes he believes to be dangerous—specialists and manufacturers of proprietary medicines. "In our day," he tells us, "the doctor has become anatomist, microscopist, physicist, physiologist, surgeon, bacteriolo-

gist, electrician, Roentgen-rayist; but physician no longer. Where is the leisure to be, absorbed as he is in his specialty." Our spectacled German oracle does not conceal his lack of sympathy for the trade of the proprietary pharmacists, believing that the physician who avails himself of their services is their chief abettor in the accomplishment of their purpose (which is to make money) and dishonors his craft. Neither has he a good word for new discoveries in medicine. "There is not one," he declares, "which has not been discovered before, abandoned, forgotten, rediscovered, and so *da capo*." If you ask him what you shall eat and drink, he will tell you "whatever you please, provided you have a good stomach." He unfortunately omits informing us how the latter is to be acquired. Occasionally he is even rational; for instance, when he regards the corset in women and the hat in men as two prolific causes of ill health. Women waste their breath in affirming that they do not lace, for the weight of the corset is even worse than the pressure. "I can not rid myself of the idea," he remarks, "that the corset is the invention of a hunchback." Loss of the hair he attributes to the wearing of a hat, and, most curiously, baldness to the habit of cutting the hair. The learned doctor would prefer the fashion of antiquity, when the hair reached to the waist, to the aspect of the front row during a ballet.

As to vaccination, he sees no special harm in the practice, provided its employment be optional with the individual, but to make it compulsory degrades it, in his opinion, to a useless barbarism. (It is to be observed that the discourse was delivered in Germany, where vaccination is obligatory.) Although he recognizes the hygienic advantages of the bicycle, he would still have us abstain from the use of the wheel. The aged companion of the ever youthful Bismarck is clearly out of place in this *fin de siècle*. T. B. S.

In the Clinics

Under the Editorial Charge of DR. OAKLEY W. HERMANCE.

IN speaking of the *exanthemata of the colored race*, Dr. Cantrell said that the skin lesions were just as prominent as they are in the white race if one looks carefully for the peculiar phenomena.

* *

IN the case of a cyanotic infant, twelve days old, brought to Dr. Eshner's clinic, without adventitious cardiac murmur or other evidence of circulatory derangement, it was pointed out that the condition was most probably due to *deficiency of the interauricular or of the interventricular septum*. The participation of the face and the upper extremities in the cyanosis seemed to exclude patency of the ductus arteriosus as a cause for the blueness.

* *

DR. HANSELL pointed out that in examining a patient for muscular anomaly or in determining the strength of the ocular muscles by *prisms*, a source of annoyance and of possible mistake, is the recognition by the patient of one or even two *false images* of the candle flame. They must not be confounded with the real image—that refracted by the prism—which will be of course of the same size as that formed by the flame on the retina of the other eye before which no prism is placed, and projected in the direction of the angle of the prism and separated from the second or true image according to the degree of the prism. The false and distorted images arise from the reflection of the rays of light by the anterior and posterior surfaces of the prism, are much smaller, may be two or three feet distant from the direct and refracted images and move very rapidly and over considerable extent by slight rotations of the prism. A knowledge that such images may be mistaken for those we are studying is sufficient to guard against error.

Announcement

TWELFTH INTERNATIONAL MEDICAL CONGRESS.

NEW YORK, March 10, 1897.

IN a letter, dated Moscow, February 14th, the Secretary General, Prof. W. K. Roth, communicates the following facts for the information of the American physicians who intend to participate in the Twelfth International Congress, which is to be held at Moscow from August 19th to 26th.

The Transatlantic Steamship Companies refuse one and all any reduction of the usual charges. In their replies, most of which are couched in courteous language (the originals are in the possession of the undersigned), they admit the existence of a trust, or contract, or agreement, which prevents them from lowering their prices; a few are so polite as to express their regrets.

Reductions of fares on Russian railroads are expected shortly. The French, Spanish, Swedish and Hungarian railroads promise a reduction of 50 per cent.; so do the Italian for a distance of 500 kilometers; less (down to 30 per cent.) for shorter distances. The Mediterranean lines (Messageries Maritimes, General Italian Navigation Company, Austrian Lloyd) grant from 25 to 50 per cent.

The undersigned chairman is not authorized to issue certificates of any kind in favor of congressists. He will try to ascertain, however, in which way their movements may be facilitated, and may receive a reply in the second half of April. Extracts of papers to be read before any of the sections ought to reach the Secretary General before June 1st, in order to be printed in the preliminary volume.

A special prospectus, containing the final details referring to traveling, lodging, festivities, etc., is promised for a near future. It will be communicated at once to the medical journals, and to the press of the country.

A. JACOBI.

News Items

THE Secretary of the American Medical Association has issued a call for the Fiftieth Anniversary meeting, to be held in Philadelphia, on Tuesday, Wednesday, Thursday and Friday, June 1, 2, 3 and 4, 1897, commencing on Tuesday, at 10 A.M.

The following amendments to the Constitution and By-laws will come up for action: AMENDMENTS TO THE CONSTITUTION AND BY-LAWS Offered by I. N. LOVE:

Art. IV.—Officers. Amend to read "Each officer shall hold his appointment for one year, and until another is elected to succeed him."

Offered by the EXECUTIVE COMMITTEE:

That there be made an Executive Council of five, consisting of the three officers of the Executive Committee and two officers chosen by election. Of this Council of five, one must belong to the Section on Practice of Medicine and one to the Section on Surgery and Anatomy. To this Ex-

executive Council shall be delegated all the duties of the Executive Committee during the interval between its meetings.

Offered by H. B. ELLIS:

Art. IX.—Conditions for further representation. "Any State or local medical society, or other organized institution whose rules, regulations and code of ethics agree in principle with those of this Association may be entitled to representation on the advice or agreement of the Judicial Council."

Offered by L. D. BULKLEY:

To change the name of the Section on Dermatology and Syphilography to that of "Cutaneous Medicine and Surgery."

NATIONAL CONFEDERATION OF STATE MEDICAL EXAMINING AND LICENSING BOARDS.—The seventh annual meeting of this Confederation will be held in the small banquet hall of the Hotel Walton, at Philadelphia, Monday, May 31, 1897, at 10 o'clock, A.M. The following program has been arranged:

- I. Address of welcome, by A. H. Hulshizer, of Pennsylvania State Board of Medical Examiners.
- II. Response by Vice-President Reed.
- III. Report of the Committee on Minimum Standard of Requirements.
- IV. Discussion, and action thereon.
- V. Report of the Secretary and Treasurer.
- VI. Annual Address of the President.
- VII. Some Practical Experience with, and Results of, the Medical Law of Pennsylvania.—William S. Foster, Pittsburg.
- VIII. The Need for Exact Information as to the Equipment, Methods, and Requirements of our Medical Schools.—J. N. McCormack, Bowling Green, Ky.
- IX. Address by Prof. J. W. Holland, M.D., Dean, Jefferson Medical College, Philadelphia.
- X. Paper.
- XI. Miscellaneous business.
- XII. Election of officers.
- XIII. Adjournment.

THE MISSOURI STATE MEDICAL ASSOCIATION will meet in St. Louis May 18, 19 and 20. All the first, the second and the third day, until noon, will be devoted to the scientific program. On the evening of the first day the association will, as a body, attend a session of the Illinois Society in East St. Louis. On the evening of the second day, the Illinois Society will attend, as a body, a session of the Missouri Association, after which there will be a banquet and reception. On the third day both bodies will adjourn, and join in a steamboat excursion on the river.

New Publications

ANOMALIES AND CURIOSITIES OF MEDICINE : Being an Encyclopedic Collection of Rare and Extraordinary Cases, and of the Most Striking Instances of Abnormality in all Branches of Medicine and Surgery, derived from an Exhaustive Research of Med-

ical Literature from its Origin to the Present Day, Abstracted, Classified, Annotated and Indexed. By George M. Gould, A.M., M.D., and Walter L. Pyle, A.M., M.D. 8vo, 968 pages, with 295 Illustrations in the Text, and 12 Half-Tone and Colored Plates. Philadelphia: W. B. Saunders. 1897.

The idea must have occurred to many that it would be quite desirable to have in collected form, for easy reference, accounts of the rare and curious cases and occurrences of medical interest recorded from time to time in medical and secular books and periodicals. Until this time, however, no one had put the idea into practical execution, the labor involved having been sufficiently deterring. Doctors Gould and Pyle have made an encyclopedic collection which is interesting for random reading, and serviceable for reference. If one has a case that seems to him unique, he can, by consulting this excellent collection, find whether or not a similar case has been previously recorded; or if he simply wishes to familiarize himself with the unfamiliar in any department of medicine or medical literature, he can pick up the book, which is systematically arranged, and find there a record of all that he desires. The industry of the authors seems to have been very great, and there is probably not a great deal that has escaped them. They promise, if the profession wish it, to issue from time to time supplementary volumes, dealing with the more recent literature, and including anything in the literature up to the date of the present volume, which may have been omitted; and they request readers to notify them of omissions or of any errors that may be discovered in the pages of their unique and valuable volume. The mechanical execution of the book and the illustrations are in the publisher's usual good style, and we have no doubt that the edition will soon be exhausted, as the book is one which every reading physician has long wished for.



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THE PHILADELPHIA POLYCLINIC

VOL. VI—No. 13

MARCH 27, 1897

UNNA'S DRESSING.

BY C. E. IDE, M.D., Buffalo, N. Y.

(Concluded from Page 123, Vol. VI, No. 12.)

TO WHAT CASES APPLICABLE?

I would mention first, as the cases in which this treatment is demanded above all others, ulcers of the leg (or arm), whether simple, varicose, or syphilitic. It is in this field that the most encouraging advance has been made, and here, when once used, it is held to be a necessity. I will cite two cases in illustration.

The first was in a man of about 55, who came to me with an ulcer of the leg, of several years' standing, twice as large as a silver dollar, with a fibrous base and few sluggish, gray granulations. It was a syphilitic ulcer which broke out in the upper third of the leg several years previously. It had at one time covered the entire anterior aspect of the leg and upper surface of the foot. The man lived in the country, and his attendant had succeeded in reducing it to the size which I have mentioned under treatment on old lines, but here it came to a standstill, the veins of the leg were slightly varicose, there being some phlebitis near the ulcer. I instituted treatment by Unna's dressing, and, after a window had been cut, local treatment. I had applied two dressings and the ulcer was healing rapidly when the man went on a "spree," and I did not see him again for four weeks. At the end of this time he returned with a gangrenous spot in the ulcer, he having removed the dressing and neglected his foot. The gangrenous spot was treated with pure carbolic acid under a new dressing, and when a window was cut the ulcer was healthy and making rapid strides. When the second course of treatment had had

a good start I raised a blister on his forearm with cantharidal plaster and grafted pieces of the raised epidermis upon the ulcer. (The blister was treated by pressing out all serum, dusting on a drying powder and covering with gauze and adhesive plaster.) Islands formed where the grafts were placed in the ulcer, and increased in size, while the edge of the ulcer crept nearer and nearer the center. In all, this man was under treatment for six months, during which time I applied seven dressings. He was not true to himself, but very lax about the dressings which he was to do himself and about coming to me. Like all cases in alcoholics and such reprobates this one was characterized by lapses in treatment and failure to pay. At last when the ulcer was nearly healed, the edema gone from the leg, the skin whiter (there having been deep pigmentation), the pain gone, and every indication favorable, he gave up the battle. This man was the butcher mentioned above. He worked all the time, and if he had followed up the treatment, as he should and could have done, the ulcer would have been well healed long before six months had expired. I mention this case as one of the worst cases which I have had. He received constitutional treatment for the syphilis (not too active) all the time he was under treatment. The result of the treatment, both local and constitutional, was highly satisfactory to me, and so relieved pain that the man found the sleep which had so long been absent and gained in weight steadily. The last time I saw the ulcer it was healing very slowly under the treatment which the man was following by himself, the good effects of the treatment by Unna's dressing still continuing.

Another case belonging to this class was

that of a woman, aged 45, who had been infected with syphilis by a good-for-nothing husband, and at the birth of her last child, ten years previously, had been infected by her doctor, resulting in phlebitis followed by phlegmasia alba dolens in both lower limbs. Both legs were edematous and cold and cyanosed, especially the left, the tissues hard, almost fibrous, and there was a secondary talipes varus with ankylosis in the left ankle, from walking on the side of the foot. The woman had suffered so much pain and insomnia she was in a sad plight physically. There was an ulcer just above the ankle on the inner aspect of the left leg, of several years' standing. This had been made much worse by the injudicious application of strong solutions of silver nitrate by various attendants—the sort who acquire a smattering of surgical knowledge and then stalk abroad seeking whom they may devour. The other leg was involved in the same changes, showing dilated veins, cyanosis, ecchymosis and edema, but no ulcer. I began treatment by placing an Unna's dressing on each leg, and when a window had been cut I treated the ulcer locally. It progressed well, but was an "irritable ulcer," giving her pain for a time after each treatment. When the granulations had reached a healthy, active condition, I grafted skin, or epithelium, in small pieces, from a blister, the grafts "taking" and the ulcer being soon covered over. The ulcer, when I began treatment, was the size of two quarter dollars laid side by side. The edema disappeared, the feet were warm, the skin in good condition, the ulcer all healed, the general health much improved, and the woman put in good condition, when, in an evil hour, the husband purchased some iodoform gauze, without orders from me, according to the advice of one of those ubiquitous counter-prescribing druggists, and applied some over and around the ulcer. This set up a dermatitis and so irritated the new epithelium that it broke down somewhat, and so that part of the work had to be done over again. At last the case was given up in despair because of failure on the part of the patient to carry out orders and pay me for my work. When last seen the uncovered portion of the ulcer was the size of the top end of a lead pencil and healing slowly. I had intended to give an anesthetic and straighten out the ankle

when the ulcer had fully healed and cicatrized firmly. This woman was under treatment for five months, and the results obtained were very satisfactory.

I have cited these two cases as examples of the worst class which one meets. They were both of several years' standing, more than ten years in each case, and in each skin-grafting and even amputation had been recommended by previous advisers. The results obtained were good, and would have been permanent, and the cases could have been followed up, as were others not so serious, if they had not been in people possessed of a degenerate type of mind. In such cases as these, after the ulcer has healed, the Unna's dressing should be continued for some time that the improved nutrition, resulting from the improvement in the circulation, may continue. If it is necessary on account of very bad varicose veins, this dressing can be continued permanently, or replaced by elastic stockings, or the veins can be resected.

Next I would mention cases of varicose veins without ulcer. Improvement is rapid. The edema disappears, pain is relieved, the veins re-assume their suspended function, the skin clears up, and the limb is placed in a good general condition. I will cite briefly two cases in illustration.

The first was that of the hotel clerk mentioned above, who had syphilis, disease of the mitral valves with dropsy, varicose veins of the right leg, and pigmentation of the skin of the leg. He suffered constantly with burning pain in this leg. This was another case of chronic alcoholism, but, unlike the other, in a man possessed of some character. He was under treatment about two months, and in that time I applied three dressings. At the end of this time, he declared that he needed no more treatment. I record this as a case of exacerbation of subacute phlebitis in varicose veins.

The other case is that of a waitress at a summer hotel in the Adirondacks. She consulted me while I was away on my vacation. She complained of pain in the legs and

arches of the feet. I found edema, ecchymosis, and varicose condition of deep veins. In this case, I applied dressings twice, with complete relief of symptoms, so that she could go on with her work. She also had anemia, incipient Pott's disease of the spine in the dorsal region, and chronic gastritis, which was treated by lavage.

Next I would mention phlebitis, acute or subacute, coming on in varicose veins. If necessary a window can be cut over the immediate region of the most intense inflammation, and ice bags applied at this point. I recall the case of a veteran of the civil war with varicose veins of the leg. An attack of phlebitis came on near the ankle anteriorly, which so improved under this treatment that he requested me to remove the dressing for fear he would fail to obtain an increase of pension for which he had applied. When the dressing was first applied there was a spot of induration near the ankle, the center of which had become soft, and it seemed as though the tissues would break down at any moment.

Next in the list is chronic edema from any cause.

Next comes eczema, acute, subacute, or chronic. Here, too, swelling disappears, itching ceases, and the skin is found white and smooth if treatment is continued long enough.

I will report the case of a large man of middle age who is a farmer. His left leg was swollen, the skin intensely red, cracked, and scaly, and exuding serum. Beneath were some varicose veins. It itched so he could not sleep and walking was so painful he limped. I covered over the skin which was cracked and raw with petrolatum and then applied an Unna's dressing to the whole foot and leg. In six weeks he returned. On removing the dressing and some scales of dried serum with it, I found the swelling gone, the dressing being loose, and the skin nearly normal, the thickening having nearly all disappeared. The patient informed me that there had been some itching which had been relieved by rubbing outside of the dressing. That day I applied another dress-

ing and never saw the man again. I was informed by his friend who had come to my office with him that his leg was well and that he went about his work in the spring with comfort.

I consider this dressing far superior to rubber-dam in these cases, which is recommended by Dr. Fox of New York.

This dressing can also be applied to various classes of skin diseases in which it is desired to bring about maceration or prevent scratching with the nails.

Next I will mention sprains, after the strapping has been removed, with or without synovitis, and weak joints from any other cause. It gives support and makes better pressure over swollen joints than bandages.

Last comes its use in fractures, after removal of plaster-of-paris or other splints, and in dislocations. After some or nearly all dislocations we do not desire to immobilize the joint entirely. In these cases Unna's dressing prevents a repetition of the dislocation and also keeps the swelling within bounds. Ice bags can be applied over the dressing just as in cases where it is not used. So also massage can be done over the dressing, and it can be made so as to be removed for douching and electricity. Passive motion can be performed to some extent while the dressing is on.

In fractures after the splint has been removed this dressing supports the parts well and yet allows of some motion to prevent the formation of adhesions. It keeps swelling down and improves the circulation in the part, favoring the absorption of any exuberant callus or products of inflammation.

In connection with this, I will report the case of Colles' fracture, mentioned above. It was in a woman of middle age, who fell on an icy sidewalk. There was a typical Colles' fracture, with separation also of the condyloid process of the ulna and dislocation of the trapezoid and os magnum. The fractures and dislocations were reduced and put

in plaster-of-paris. At the end of ten days, the plaster was removed, and an Unna's gauntlet applied. This was made so as to be removed every day, as recorded above,

and, at the end of ten weeks, the hand and wrist were in good condition, the woman returning to her work as a tailoress as heretofore.

A CASE OF PROFOUND ANEMIA, PROBABLY OF GASTRO-INTESTINAL ORIGIN.¹

BY AUGUSTUS A. ESHNER, M.D.

Professor of Clinical Medicine in the Philadelphia Polyclinic; Physician to the Philadelphia Hospital.

C. A., a light-colored mulatto, 43 years old, employed as a waiter, applied at the Polyclinic on June 12, 1896, complaining of palpitation of the heart and precordial distress, with a sense of throbbing in the head and a sound like the hissing of steam in the ears. There was, besides, some shortness of breath, with pain in the chest and mucous expectoration. At times there was epistaxis, and free bleeding had followed the extraction of a tooth. There was, further, vertigo, with slight headache, impaired appetite and loss of flesh to the extent of eight or ten pounds. The tongue was coated, and the bowels were irregular, being sometimes loose, sometimes constipated. Often there was flatulence and sometimes nausea after the ingestion of food. Sleep was poor. There had been no chill or feverishness, but sweating occurred at night. The patient gave a history of having had malarial fever at 21 years of age, gonorrhea at the age of 23, and at one time "inflammation of the stomach." He had long suffered from what he supposed to be gastric disorder. There was no history or evidence of metallic poisoning. The father of the patient had died of pneumonia, his mother of meningitis and a sister of intestinal tuberculosis.

The man was very, very pale, with a slight lemon-yellow tint, and his appearance was at once suggestive of profound, the note says, "perhaps pernicious anemia." The pulmonary percussion-resonance was preserved; the breathing was soft. The action of the heart was rhythmic, but at the apex and over a very considerable area a soft systolic murmur was audible, together with a hum in the neck. There was no bone-pain and no evidence of hemorrhage. The knee-jerks were preserved and co-ordination was unimpaired. The patient was readily fatigued on slight exertion, and was easily put out of

breath. Examination of the blood at this time, kindly made by Dr. J. K. Mitchell, showed a hemoglobin-valuation of less than 20 per cent. The corpuscles failed to form rouleaux and varied greatly in size and shape. The urine presented no abnormality.

The patient was given 15 grains of sodium phosphate in hot water before each meal and a pill containing $\frac{3}{16}$ grain of arsenous acid, $\frac{3}{16}$ grain of strychnin sulfate and 2 grains of reduced iron after each meal. At other times he was given bone-marrow in various forms, Fowler's solution, Bland's pill, salol, creosote and other things. He improved somewhat under this plan of treatment, ultimately regaining his original weight, though for a time a good deal troubled with looseness of the bowels and anorexia. At one time there existed a distaste for salt, and water had a sweetish taste.

On August 21, 1896, the hemoglobin-estimation was 45 per cent., the number of red blood corpuscles 2,250,000 to the cubic millimeter, and on February 10, 1897, the hemoglobin-estimation was 30 per cent., and the number of red cells 1,600,000. At different times, the hissing and pumping sensations in the head constituted a source of considerable annoyance. With these there was associated a sense of oppression of the chest, together with a sense of the need of air. Drowsiness was at times present; transitory edema of the face and legs made its appearance; and passing cyanosis and formication manifested themselves in the finger-tips. Two sisters of the patient were quite as pale as he.

While the color of this patient was suggestive of so-called pernicious anemia, examination of the blood pointed to the existence of only a high grade of simple anemia. It

¹ Demonstration at the Philadelphia Polyclinic Hospital.

is a well-recognized clinical fact that the appearance of a person is not a safe index of his blood-state. From causes yet beyond the range of explanation pale and apparently anemic individuals may have a full complement of red blood-corpuscles and a high percentage of hemoglobin. Occasionally, the reverse is observed.

Other than the pallor and the blood-state, the most marked and the most troublesome symptoms were those relating to the digestive tract, and to these especial therapeutic attention was directed. It was observed that there was a close parallelism between the integrity and the activity of the digestive functions and the general state of the patient. There was thus strong circumstantial evidence that the anemia was of gastro-intestinal origin, either from a deficiency in the functional activity of the stomach and the bowels or as a result of absorption from the alimentary tract of substances capable of an injurious effect upon the red blood-cells. While this assumption seems a perfectly reasonable and the most logical one, it can scarcely be considered extravagant to view the gastro-intestinal disturbance as a secondary manifestation of the impoverished state of the blood. In either event we had both factors to deal with from the therapeutic standpoint. It was for this reason that especial attention was given to the maintenance of the digestive functions; the administration of the fullest amount of simple, nutritious food, given in small amounts at short intervals; the adjustment of a proper relation between exercise and rest; the employment of nuxvomica or strychnin and nitro-hydrochloric acid and the administration of such remedies as arsenic, iron and bone-marrow. I am scarcely able to state with positiveness that any one of these remedies has had a larger influence in the slight improvement that has taken place than any other, although the best therapeutic result appeared at different

times to follow the use of arsenic in some form, and I feel no assurance that what has been gained will be maintained.

From the beginning a rather conservative prognosis has been given, and the ultimate outlook has been considered ominous, although the case has been viewed as one of profound rather than of pernicious anemia. Whether or not this distinction is a sound or a useful one further experience must determine, as the sclerotic changes in the spinal cord present in some cases of pernicious anemia have also been found in cases of profound anemia unattended with the characteristic relation between hemoglobin-valuation and number of erythrocytes; and cases of both may terminate fatally, independently of complications.

Current Literature

REPORT ON OBSTETRICS.

BY E. P. DAVIS, M.D., and W. H. WELLS, M.D.

Puerperal Neuritis.—Köster (*München. Med. Wochenschrift*, 1896, No. 27). The patient experienced pain and weakness of the left arm two weeks after a normal confinement, there was no fever during the puerperium. She was under observation for eight months, but, in spite of active treatment, little if any improvement resulted. In cases where fever is present, or has preceded the attack, the etiology is clear, because the pathogenic bacteria of the puerperium are known. When the neuritis occurs after an afebrile puerperium the cause is probably due to the toxins formed by the involutions of the genitalia.

A Case of Rupture of the Uterus During Labor.—Rein (*Wratsch*, 1896, No. 6). The patient, 21 years of age, was twice delivered normally. Five hours after the beginning of labor pains, in this pregnancy, the membranes ruptured, and the cord and right hand prolapsed. An ignorant midwife made traction upon the prolapsed cord, whereupon the woman complained of severe pain and became unconscious. Three hours later the woman was transferred to the clinic and celiot-

omy performed. Fetus, placenta and large masses of blood clot were found in the abdominal cavity. An extensive laceration of the anterior uterine wall, extending into the left broad ligament and vagina, was also disclosed. The uterus was removed, the stump treated by the extra-peritoneal method and the patient recovered.

Infantile Diarrhea.—A. F. Plicque (*La Presse Medicale*, July 1, 1896). The author recognizes four varieties of diarrhea: (1) Simple diarrhea, caused by cold or by defects in alimentation. This should be promptly treated by regulation of the diet, and by a purgative, such as castor oil with orange juice, or sodium sulfate in sugar water. Should further medication be required, injections of starch water with from one-half to a drop of laudanum may be employed, or the internal administration of bismuth or astringents. Persistent diarrheas must be treated by opium. (2) Bilious diarrhea, which may be discriminated from green bacillary diarrhea, by the addition of a drop of nitric acid to the stains made by the fecal matter, when the characteristic violet-rose coloration will be seen. Alkaline treatment is all important; sodium bicarbonate is given at the rate of fifteen grains in twenty-four hours for each two and one half pounds of the child's weight, but the daily dose should never exceed more than one and one half drams the alkali. Biliary diarrhea due to tuberculosis of the liver will resist all treatment. (3) Green bacillary diarrhea may be acute and cause death in one or two days, or, becoming chronic, may prove fatal from athrepsia. In addition to general hygienic measures we should give lactic acid. (4) Cholera infantum may occur during the course of either of the varieties of diarrhea alluded to. Its two special symptoms are peripheral algidity with cyanosis of the extremities, with, perhaps, rectal elevation of temperature and collapse with complete inertia, which is occasionally interrupted by subsultus and respiratory effort. Feeding should be insisted upon in spite of the vomiting; chicken broth being often better tolerated than milk. Milk with a few drops of brandy should be given by teaspoonfuls. The medicinal treatment consists of lactic acid, hydrochloric acid, and laudanum. Internal stimulants, as champagne, coffee, etc., or external

ones, as hot mustard baths and injections of ether, should be employed.

The Early Recognition and Treatment of Puerperal Fever.—John W. Byers (*Lancet*, Aug. 22, 1896). Should a quickened pulse and a temperature above 99° F. exist in a puerperal patient, a thorough examination of the vagina, perineum and uterus is indicated. If there are any tears, and if they appear at all unhealthy, they should be washed with corrosive sublimate solution (1-1000), curetted, and touched with either the actual cautery or solution of silver nitrate (60 grains to the ounce) and then dusted with iodoform. Abscess of Bartholin's glands must be freely opened, cauterized and packed with iodoform gauze. Septic vaginitis is treated similarly to the same condition of the perineum. Treatment of the uterus comprises simple irrigation, continuous irrigation and curettage. If the cervix is markedly patulous, and there is any foreign mass in the interior of the uterus, or should the examining finger experience the sensation of soft tissue which breaks down readily on pressure, curettage is indicated. Curettage should always be performed if there exists fetor after vaginal douching, together with a patulous cervix, and a decomposing body in the uterine cavity. Simple irrigation suffices if the endometrium feels normal, using a corrosive sublimate solution (1-4000), at a temperature of 100-105° F., employing about four to five quarts of the solution. This need not be repeated if it is followed by a slowing of the pulse and a decrease in the temperature. Should the temperature be unaffected, or if the fall be followed by an elevation next day, the douche should be again used. If, notwithstanding the repetition of the douche, the temperature is unaffected, either continuous irrigation or curettage must be employed. Continuous irrigation can be kept up for twelve hours or more, using either a weak carbolic acid solution (1½-2 per cent.), lysol, or boric acid. The irrigation should be followed by painting the uterine cavity with undiluted tincture of iodine. Curettage is indicated should the continuous irrigation prove ineffectual. Whichever treatment is employed, it should be supplemented by the administration of concentrated nutritious food in liquid form, and in addition quinin, digitalis, strychnin and alcohol.

THE PHILADELPHIA POLYCLINIC

Brief, practical, original articles, and news of general professional interest are solicited for publication in this journal. Contributions accepted will be paid for on publication, or, if desired, and so indicated on the manuscript, 250 reprints will be furnished in lieu of other compensation.

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PHILADELPHIA, MARCH 27, 1897

MEDICAL LIBRARIES BY CO-OPERATION.

THERE are in the United States less than a dozen cities that have public medical libraries of any considerable size. These cities are not the largest in the country, but are those in which the activity of some particular individual, or society, or medical school, has secured this great professional advantage. To one who wishes to write upon, or to thoroughly study any subject connected with medicine or surgery, access to a good reference library is of the utmost importance. The opportunities that their medical libraries afford are among the especial attractions of the larger cities for the active and ambitious members of the profession.

Perhaps any physician fairly successful in practice can afford to buy all the books that he wishes to read. But no individual can get together all that he might at some time desire to consult. In each large town or city will be found one or more members of the profession who possess good private libraries, some of them running up to several thousand volumes, with files of some of the leading journals. These libraries may be open to the professional friends of their own-

ers, yet are not fully available to the owner himself, because of lack of classification.

A library includes two essentials: one, the books; the other, their arrangement and cataloguing. A collection of books, without any arrangement or means of quickly ascertaining what it contains, is about as useless for reference as the catalogue without the books. And the larger the collection of books the more worthless it is without the catalogue. In many small cities there are enough books to constitute a very good reference medical library, if they were only supplemented with a good catalogue. In most of these places might be found one or more young physicians with superabundant leisure, which might be most profitably employed in supplying the needed catalogue. The work would give them an acquaintance with medical literature of the highest value, and make the part of it included within the collection readily available both for themselves, and to other members of the profession of their locality.

Something of this kind is now being done in Denver, upon the suggestion of Dr. Charles D. Spivak, now of that city, but formerly a member of the clinical staff of the Philadelphia Polyclinic. The Colorado Medical Library Association has, for some years, been accumulating, in connection with the Public Library of Denver, a valuable medical reference library. But this is still far from complete, and there are in the city a number of fine private collections of medical books and journals. These latter are to be rendered available to the profession at large by a carefully prepared and classified list of the works they contain, that are not to be found at the public library. Such list will indicate in whose office each book may be found, and at what hours readers may refer to it. The Medical Library Association has undertaken the work of preparing the list, and its completion will offer reference library facili-

ties not equalled in this country, outside of three or four of the largest eastern cities, and the library of the Surgeon General's office at Washington.

The plan is one that well might be tried in other cities, wherever the profession is fairly organized and living together amicably. To the possessors of even the largest private libraries, the advantages it offers will more than balance any inconvenience it might entail; and to other members of the profession it would be worth far more than the cost of putting it into operation. It can best be tried in connection with some existing library or established medical association. But it would of itself furnish sufficient reason for the organization of a society with this single object in view.

E. J.

Editorial Notes

Fluid Extracts, Tinctures and Infusions.—The article of Mr. J. W. England on "Pharmacopoeial Preparations of Digitalis," and the editorial comments upon this article, which appeared in THE PHILADELPHIA POLYCLINIC for January 2, 1897, have excited considerable interest and attention throughout the country, especially in pharmaceutical journals. Some of the latter, rather from a trade standpoint than from strictly scientific considerations, as it appears to us, defend the practices condemned by Mr. England and THE POLYCLINIC, which are, of course, in the interest of the large manufacturers of commercial fluid extracts. It should be surprising to find *The Journal of the American Medical Association* on the same side. As we have previously stated, however, the question is not properly commercial, but therapeutic, and we purpose to have it fully discussed in our columns from this standpoint, in the hope of attracting the serious attention of physicians to one of the reasons why the preparations dispensed upon their

prescriptions for tinctures and infusions may fail to give the effects desired. If this is, as *The American Therapist* states, "sensational," we desire nothing better than to make such a sensation. The simple facts that cannot be gainsaid or evaded by any talk about standards, etc., are these: If the physician desires a diluted fluid extract he is perfectly able to write his prescription accordingly; that he does not do so, but prescribes a tincture or an infusion, is sufficient evidence that he prefers the latter. *The druggist has no right to alter the prescription*, which he practically does when he dispenses diluted fluid extract in place of the tincture or infusion written for. S. S. C.

* *

Obituary—ERNST BRAND. The medical world will learn with genuine regret of the death at Stettin, in Germany, at the age of 70 years, of Ernst Brand, who has done more than any other to establish the treatment of the febrile state with cold water upon a firm basis. His monograph on the hydrotherapy of typhoid fever was published in 1861, and a second edition in 1877, and it is as a result of his labors that the mortality of typhoid fever, wherever his method is faithfully and intelligently carried out, has been reduced from 20 per cent. and upward to between 5 and 10 per cent. To Brand belongs also the credit of having established so-called holiday colonies, through whose agency many a poor child has been restored to health and strength.

* *

The Diet Kitchen of the College.—We call attention to the communication, in another column, from Miss Agnes Daley, the energetic and efficient Superintendent of the College Settlement of Philadelphia. Situated in a district in which the residents generally are profoundly ignorant of the first principles of cooking, the Diet Kitchen of the Settlement is capable of doing much good, provided physicians will avail themselves of the help it offers. The writer of this note has found the help of the Kitchen invaluable, and is glad to disseminate the knowledge of its existence.

S. S. C.

Popular Lectures at the Polyclinic Hospital.—The first of a course of popular lectures on hygienic topics at the Polyclinic Hospital was given on March 24th, before an audience that overflowed the amphitheater and crowded the arena and the corridors, by Dr. Solomon Solis-Cohen. His subject was "The Prevention of Consumption and the Care of Consumptives." The succeeding lectures are announced as follows:

- March 26, 5 P.M.—Dr. Henry Leffmann. Hygiene and the Laws of Health.
 " 31, 5 P.M.—Dr. Thomas S. K. Morton. Surgical Emergencies.
 April 2, 8 P.M.—Dr. Max J. Stern. The Roentgen Ray Apparatus and Skiagraphy.
 " 7, 5 P.M.—Dr. Judson Daland. The Nursing of Fevers.
 " 9, 5 P.M.—Dr. J. Madison Taylor. Developmental Needs of Children.
 " 14, 5 P.M.—Dr. Edward P. Davis. Mother and Child.

Correspondence

THE DIET KITCHEN OF THE COLLEGE SETTLEMENT OF PHILADELPHIA.

To the Editor of Philadelphia Polyclinic:

AT the corner of Seventh and Lombard Streets, Philadelphia, the College Settlement has established a kitchen, the aim of which is to give to the people of that locality carefully prepared food that will give the highest nutrition at the lowest cost. The kitchen has been in operation for more than a year and the Settlement invites those interested to investigate what is being done.

Especially would it call attention to one branch of the work, the growth of which is very slow—diet for invalids.

A beef broth is prepared which is intended to replace beef tea. This broth is a food, not a stimulant only, there being retained between 4 and 5 per cent. of solid matter. It is prepared by a careful method which gives a uniform result. The Aladdin oven is used in its manufacture, thus insuring a long slow cooking at low temperature. It is believed that if physicians would give it a trial it would be widely used. In addition to this, other articles of sick diet are prepared: custards, jellies, gruels, koumyss, sterilized milk, etc.

Another feature of the kitchen work is its classes for women. To these are invited all who wish to get some knowledge of food and its preparation. Physicians are urged to call and see the work.

Yours respectfully,

AGNES DALEY,
Superintendent.

IN THE INTERESTS OF MEDICAL SCIENCE.

To Members of the Medical Profession, Individually:

As there is evidence tending to prove the theory that all persons predisposed by heredity to consumption have a respiratory capacity or action insufficient for good, vigorous health, probably a proportionately small chest with insufficiency of lung membrane—that the predisposition is mainly or primarily due to this cause; in other words, that the insufficient respiratory function is the special primary feature of the predisposition (a condition which may be, practically, acquired by habit, occupation, etc.), I desire the co-operation of the profession in an endeavor to help to establish, by means of collective investigations, the correctness or otherwise, of this theory.

In this behalf I hereby ask all physicians who have patients predisposed to, or in the early stages of, consumption, to send to me on a post card (will suffice) the information below indicated. As soon as I can study and collate the replies I shall make the results known to the profession.

Give (1) name (or initials); (2) sex; (3) age; (4) occupation; (5) height; (6) weight; (average when in usual state of health); (7) circumference of the chest on a level with sixth costo-sternal articulation when momentarily at rest after an ordinary expiration, and also (8) after habitual natural expansion or inspiration (which last (8) usually exceeds the first measurement, expiration (7), by an increase of only about one-fourth of an inch); finally (9), the circumference after a forced expiration, and also (10) after a forced inspiration (these two measurements, 9 and 10, varying or showing a range of from $1\frac{1}{2}$ to 4 inches). The patient should of course be as calm as possible, and had better, usually, practice the forced breathing for a few acts before these two last measurements, 9 and 10, are taken.

To be of value, all four measurements should be taken as carefully, accurately and free from haste as possible.

Any further information, in brief, as to degree of heredity (family history) in cases, prominent symptoms—loss in weight, cough, dullness on percussion, etc., etc., or any remarks, will be a decided advantage.

Measurements of two cases, or several, or the average, could be given on one card.

With the hope that many will comply with the above request, and with much respect for and interest in the profession, I am

Yours truly,

EDWARD PLAYTER, M.D.

Ottawa, Ontario.

In the Clinics

Under the Editorial Charge of DR. OAKLEY W. HERMANCE.

DR. CANTRELL stated that the *intertrigo* of young infants could often be relieved very quickly by means of a powder of acetanilid in the proportion of one dram to the ounce of lycopodium.

**

In a lecture on the *mechanism of normal labor*, Dr. Davis recommended an injection, per rectum, of:

Milk 1 fluidounce.
Water 1 fluidounce.
Chloral 30 grains.

The above may be used during the first stage of labor to lessen pain. As the head passes the vulva the patient is given sufficient chloroform to dull the sensibility.

**

DR. ESHNER exhibited to the class a man with an *ague-cake*, who, nine months before, had lived in Arkansas and who now complained of chills and fever, with marked loss of weight and profound pallor. Examination of the chest failed to disclose any abnormality, but in the blood were found pigmented *malarial organisms*, despite the fact that the patient had been taking two grain doses of quinin. Quinin in five grain doses in solution with aromatic sulfuric acid and dilute hydro-bromic acid, to be taken thrice daily, was prescribed.

New Publications

VINGT CAS DE FRACTURES DE CLAVICULE TRAITÉS PAR LE MASSAGE. Par le Docteur Dagron. Paris, 1896. (Twenty cases of fracture of the clavicle treated by massage, by Dr. Dagron.)

Dagron, formerly a subordinate under Lucas-Championnière, reports a series of cases of fracture of the clavicle treated by the method advocated so strongly in the treatment of fractures by the latter. The results even in fractures of the clavicle in adults have been, he states, unusually satisfactory. The skin over the fracture and in its vicinity is anointed with oil. Then the broken bone and the neighboring articulations and muscles are subjected to gentle

massage, followed in time by passive and active movements. No pain is to be given by the manipulations, which must be systematically employed and slowly increased in force from day to day. The adjustment of the fragments is thus made easy. The patient carries the arm in a sling. When consolidation has occurred, which it does about the eighteenth or twentieth day, the patient is cured; for no stiffness or muscular atrophy has been permitted to take place. J. B. R.

LE ROLE DE LA GRAISSE DANS LES HERNIES.

Par le Docteur Just Lucas-Championnière. (The role of the adipose tissue in hernia, by Dr. Just Lucas Championnière.)

This paper, extracted from the *Journal of Practical Medicine and Surgery* of Paris, gives the views of this distinguished author on the part of the adipose tissue in hernial conditions. It discusses therapeutic applications, founded on his views, and the prevention of hernia, the preparation of subjects upon whom operation for hernia is to be performed, and the palliative treatment of inoperable cases. The discussion is a thoughtful and scientific one. The well-known work of the author in developing the operation for radical cure of hernia, of which he has long been a most earnest advocate, makes his views worthy of great consideration. He believes that emaciation, especially if of rapid occurrence, tends to encourage the production of hernia, but that on the other hand, the rapid accumulation of fat also acts as a provocative of this surgical disease. He believes that in obese persons, a peritoneal funnel is formed by the fatty tissue dragging the peritoneum outwards rather than by the viscera pushing it forwards. Into this "pre formed" sac the abdominal contents are thrust by the intra-abdominal pressure. His discussion of the mechanism of the hernial projection is very interesting.

J. B. R.



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A BRIEF OUTLINE OF THE THEORY OF THE MOVEMENT OF THE NEURON AS APPLIED TO NORMAL AND PATHOLOGIC MENTAL AND NERVOUS PROCESSES.¹

BY F. X. DERCUM, M.D.

Clinical Professor of Nervous Diseases in Jefferson Medical College; Neurologist to the Philadelphia Hospital.

SUBSEQUENT to the reading of the interesting paper on The Neuron by Dr. A. O. J. Kelly,² a number of members of the Society requested me to give an explanation of the theory of the movement of the neuron as held by myself. As I have pointed out in a previous paper, the theory that the neuron is not an absolutely fixed morphologic integer has been advanced independently by several writers. When the thought first occurred to me that nerve-cells have the property of movement, I examined the literature and found that it had already been announced independently by three writers, one in Germany and two in France. The first to advance such a view was Rahl-Ruckard, who in 1890 suggested that nerve-cells have amoeboid movement. At the same time he pointed out the significance of this view in enabling us to explain the phenomena of hysteria. His ideas, however, attracted no attention, but in 1894 Lépine, in relating a case of hysteria of peculiar form, advanced practically the same theory. His idea was that the neurons were capable of movement to such an extent as to enable them to alter the degree of their relation to each other. Some six months afterward another French writer, Mathias Duval, advanced the same theory in a communication made to the So-

cieté de Biologie. Lépine had been unaware of the view advanced by Rahl-Ruckard, and Mathias Duval was equally ignorant of that advanced by Lépine. A week after Duval had announced his theory, Lépine before the same society repeated his former arguments in its support. I myself presented the theory of the movement of the neuron in a paper read before the College of Physicians of Philadelphia, in January, 1896; and in June of that year read an address on the same subject before the American Neurological Association. In the meantime, in the spring of 1896, the theory has been again advanced by two other French physicians, Azoulay and Pupin.

This theory has now begun to attract general attention and is gradually meeting with support. It has been opposed, however, by the distinguished Spanish histologist, Ramon y Cajal. I will not take time to consider at length the views of this investigator, as I have already done so in a previous paper. I will, however, pause sufficiently long to point out that his argument bears within itself its own refutation. He maintains that nerve-cells do not move, but on the other hand that the neuroglia-cells move. He points out the fact that the processes of the neuroglia-cells have numerous short abores-

¹ Read before the Philadelphia County Medical Society, February 24, 1897.

² Transactions Philadelphia County Medical Society, 1896, p. 215.

cent and plumed collaterals, and he states that in these cells two different phases can be observed: first, a stage of contraction, that is a stage in which the cell-processes become shortened; and secondly, a stage in which the cell is relaxed, that is a stage in which the processes of the neuroglia-cells are elongated. He maintains that the processes of the neuroglia-cells represent an insulating and non-conducting material and that during the stage of relaxation these processes penetrate between the arborizations of the nerve-cells and their protoplasmic processes, and thus make difficult or impossible the passage of nerve-currents; on the other hand, in the stage of contraction the processes of the neuroglia-cells are retracted and they no longer separate the processes of the nerve-cells, and the latter are thus permitted to come into contact. Evidently Ramon y Cajal admits the very thing against which he contends, for if the nerve-cell processes are at one time not in contact and at another are in contact, they must certainly move and the question before us is self-admitted. It matters not whether the processes of the nerve-cells move little or move much, but that they move at all is the question at issue, and this Ramon y Cajal admits, though he makes the movement a purely passive one. It is certainly a minor point whether the movement of the processes of the nerve-cell is active or passive; although it is in the highest degree improbable, and is certainly not evident from the histologic facts at our disposal, that the neuroglia-corpuscles play the roll of an insulating material.

While the movements of nerve-cells have not been observed in vertebrate animals, such an observation has been made in an invertebrate form. A German investigator, Wiedersheim, in 1890 saw, in the living animal, *leptodora hyalina*, an entomostrakon, the nerve-cells in the esophageal ganglion move. This ganglion may in a sense be re-

garded as the brain of the animal, inasmuch as it receives the fibers of the optic nerve, and Wiedersheim actually saw these cells move and change their shape, and this movement he describes as slow and flowing. (He presents a number of drawings of the esophageal ganglion made at different times, showing the various shapes assumed by the nerve-cells.) This observation evidently possesses a profound significance. It does not matter that it was made upon a form far removed from the vertebrates, for we should remember that it is just in the lower forms that general biologic truths have been demonstrated. I will not occupy time with a further consideration of the facts on which this theory rests, but will proceed at once to its application to normal and pathologic mental and nervous processes.

Before beginning a systematic consideration of the theory, it may be well to give as an illustration of its simplest expression—the supposed behavior of the neurons in a case of transient hysterical paralysis. Hysterical paralysis, as we all know, may be so complete as to simulate very closely paralysis due to a gross lesion, and yet in the course of a few hours or perhaps in a few minutes such paralysis may absolutely disappear. Modern students of hysteria are convinced that hysteria is a *bona fide* affection with a syndrome that is as characteristic as that of any of the diseases with which we are acquainted. The idea of voluntary simulation has no hold on the minds of neurologists to-day. What is it that happens in the nervous system when a limb, say an arm, is suddenly paralyzed, remains paralyzed for a time and again suddenly recovers its function? Evidently some change has taken place in the nervous system. Let us see how the theory of the mobility of the neuron enables us to explain the phenomena.

The neurons of the motor area of the cortex, as you are aware, present not only

protoplasmic extensions directed towards the surface of the cortex, the dendrites, but also a protoplasmic extension downward, which becomes a nerve-fiber, but which is, properly speaking, a process of the cell-body, no matter what its length may be. This process, which is now known as an axon, extends downward through the white matter of the brain, the internal capsule, the crus, the pons, the medulla and the cord and terminates in the last in a brush-like extremity, the end-tuft. By means of this end-tuft the cortical cell is brought into relation with the motor nerve-cells in the spinal cord. What the relation between this end-tuft and the nerve-cell in the anterior horn of the spinal cord may be is not known. It is probably one of contact or of close proximity. That an actual continuity of structure between the end-tuft and the spinal cell does not obtain is now absolutely known.

Now what happens in the case of hysteria in which the arm has been paralyzed? As the result, we will say, of an emotional or other psychic shock, or possibly of a physical shock, the neurons of the arm-center of the cortex retract their processes and in such a way that their end-tufts in the spinal cord no longer bear their normal relation to the spinal neurons. In other words, the connection between the cells is broken. We will suppose now, as many of us have seen, that as a result of suggestion, either with or without hypnotism, or spontaneously, the paralysis of the arm disappears. According to the view here advanced this disappearance is due to the extension or protraction of the processes previously retracted—that is, the end-tufts resume their normal relations with the spinal neurons and function is re-established. Certainly no other theory explains so readily the appearance and disappearance of hysterical paralysis or of hysterical anesthesia. In these conditions there is really

a lesion, consisting of a break in the normal relations of the neurons, due to retraction of cell-processes.

As regards the movement of the cell-processes, it is highly probable that this property is not limited to the end-tufts of the axons, but that it is also shared by other processes of the nerve-cell, especially the collaterals, and perhaps even, to some extent, by the dendrites. A further possibility suggests itself, and that is, that the movement may be not simply one of retraction or protraction, but also lateral in direction.

Having acquired a clear conception of what is meant by the movement of nerve-cells, let us proceed to apply the theory in a systematic manner and let us see how readily it enables us to explain various normal and pathologic phenomena. Let us take, to begin with, the familiar instance of sleep. Sleep has been commonly attributed by physiologists to an anemia of the brain, notwithstanding the fact that true and undoubted anemia of the brain, such as follows great loss of blood or accompanies marked general anemia, is not attended with somnolence, but rather with insomnia. Let us see how the movements of the neurons will account for sleep. Evidently the neurons, when functionally active, must be in relation with one another. Their processes must be either in contact or nearly so. Evidently this condition is a prerequisite of consciousness. Now what happens when the nerve-cells are exhausted by fatigue, when their volume and their cell-contents have been diminished, as we have every reason to infer is the case, from the experiments of Hodge? Evidently their processes become retracted and they are no longer in relation with one another. The neuron isolated from the rest by retraction must be without function. General retraction of neurons must mean absolute loss of function, must mean unconsciousness, must mean sleep. In other words, in sleep

the neurons have their processes retracted; in consciousness their processes are extended.

See, also, how beautifully this theory enables us to explain pathologic unconsciousness, such, for instance, as attends cerebral concussion. A man, while conscious, receives a severe blow upon the head; the neurons suddenly retract their processes, and unconsciousness results. Certainly, no other theory for the explanation of the unconsciousness of cerebral concussion is equally simple, or

equally plausible. It is extremely probable also that other forms of unconsciousness are to be similarly explained; for instance, the unconsciousness of chloroform or ether anesthesia, or the sleep produced by drugs. In these conditions it would appear that the neurons, by virtue of the direct action of the substances introduced into the circulation, retract their processes, and, for the time being, sever their relations with one another.

(To be continued.)

A PLEA FOR GREATER CLEANLINESS OF SURGEONS AND ACCOUCHERS.

BY FRANK W. TALLEY, M.D.

Adjunct Professor of Gynecology in the Philadelphia Polyclinic; Obstetrician to the Frederick Douglass Memorial Hospital; Consulting Obstetrician to the South-Eastern Dispensary.

AT this aseptic era of surgery, when mortality rates have been so wonderfully reduced and results rendered so nearly perfect, the time has come when attention may be given to the little things concerning ourselves, assistants and nurses, hoping thereby to attain still better results. The operating room has evolved into a model of neatness and cleanliness, the operating-table and armamentarium are so adapted that no cracks or roughness may give lodgment to germs. The sanitary arrangements of the hospitals and lying-in establishments have been repeatedly discussed and perfected, but how easily is the object of this painstaking lost if the operator, his assistant or nurse becomes a focus of infection.

Did you ever wonder that the results and mortality rates differ among operators of the same degree of ability? How strange that some brilliant operators have a higher mortality rate than others less gifted. Even the work of colleagues in hospital service, working with equal facilities, will often afford a marked contrast. Perhaps the difference in results will be found due to a difference in the cleanly habits of the individuals.

The surgeon and the accoucher should of

all men live clean lives, regarding the bath tub as one of their most important instruments. Sporadic attacks of cleanliness immediately before an important operation are not sufficient. They should remember the commandment of the Divine healer, "*Be ye always ready.*" I do not consider it proper for any man to practice surgery or obstetrics who does not receive a daily bath in warm water with the free use of soap and brush. The hair and beard should be worn short and scrubbed daily with soap and brush. They afford a large surface well adapted for the harboring of dust and germs, ready to be rained down at any time upon the field of operation by currents of air. I do not believe that female operators or accouchers will ever reach as perfect results as males unless the hair be sacrificed. It is not sufficient for women with long hair or men with unwashed hair to swathe their heads in cloths. If the operator saw a pathologic specimen or an infected dressing in the room, would he be satisfied to have it covered with a towel or would he have it removed?

But long-haired women and long-bearded men may argue that their results have always been good. Have you never experienced a

case which became infected? Could your results not be improved? Remember if but one case in 10,000 died from sepsis in your hands, and that infection came from your hair, you are as guilty of the death as though you pierced the patient's heart with your knife.

Chronic diseases attended with suppuration, nasal catarrh, suppurating ears, caries of the teeth, gonorrhea, should all debar the surgeon or accoucher from his calling until such troubles are cured. I remember while reading medicine in my preceptor's office, that a long-bearded practitioner called on account of a felon on his finger, which my preceptor opened and dressed. The next morning early the physician returned to have the dressing changed, as he had attended a case of confinement during the night and had soaked the dressings with amniotic liquor. It did not occur to him that he had risked his patient's life or future health.

The hands of the cleanly surgeon may become a source of danger from the cracking of the skin incident to the repeated washings in mercuric chlorid solutions. Each of these cracks may harbor germs that are difficult to reach with the scrubbing brush. They may be prevented if the hands are washed after operation in warm water, dried and then rubbed well with sterilized oleum bubulum. The neats-foot oil has a better property of penetration into the skin than any other oil to my knowledge. The fingernails should be kept closely pared and clean by frequent scrubbing. A doctor once showed me a long nail on his right index finger, the edge of which he had serrated with his pocket knife. This was convenient, he said, for rupturing the membranes; but what unnumbered possibilities of infection lay hidden in those serrations or under the long nail!

The question of clothing is one upon which much should be said. How strange

that we should insist upon changing our linen frequently, and yet be willing to wear cloth for months, picking out, indeed, dark suitings so that they will not show the soiling! The condition of our outside clothing may be imagined, if we compare it with the idea of what linen would be if worn so long. Yet many will approach their operations, and lying-in women, clad in such filthy goods, and express wonder when they do not do well.

The ideal surgeon and accoucher should wear white cloth or linen clothing when performing his offices, and these should be frequently cleansed. This applies not only to the physician, but to his assistants and nurses. While this ideal cannot be reached in such immaculate purity, yet we can carry a clean, freshly-ironed linen coat and trowsers in our obstetrical bag to wear during our attendance upon the labor. We can operate in a wash-linen dress. We can keep our hair and finger-nails short and maintain a daily use of bath tub, soap and brush, and we can approach our convalescent operation-cases and lying-in women with clean linen coats. By such painstaking, the necessity for antiseptic solutions will be greatly diminished, mortality will be reduced, and the prevalence of pelvic inflammatory disease will be very much lessened.

COMINI (*Arch. per le Scienze med.*, 1896, April; *Wiener Med. Wochenschrift*, 1897, No. 9, p. 397) reports two cases of akromegaly with autopsy in one. The hypophysis was as large as a pigeon's egg, softened, degenerated; the thyroid atrophied, strewn with hemorrhagic areas. Peripheral polyneuritis with amyotrophy existed. In one case pain had been relieved by thyroid in doses of 1 grain four to six times a day.

The best investment of a dollar a year is to subscribe for THE PHILADELPHIA POLYCLINIC.

CONGENITAL OCCLUSION OF THE RIGHT NARIS, POSTERIORLY.—SUCCESSFUL OPERATION.

BY J. T. RUGH, A.B., M.D.

Adjunct Professor of Orthopedic Surgery in the Philadelphia Polyclinic; Chief Clinical Assistant to the Throat and Nose Department of Jefferson Medical College Hospital, etc.

ON May 26, 1896, Miss A. S., aged 18 years, came to me to ascertain the cause of her inability to breathe through the right side of her nose. She did not remember having ever breathed through that side, and for many years was of the opinion that a growth of some character obstructed the passage. Her family physician had told her some time ago that she had catarrh of the nose and throat, which opinion was correct so far as it went, but the nature and cause of the catarrh were utterly ignored. She has always had good health and when young had several of the diseases of childhood, but at no time has she had an acute inflammation of the nose or throat. Her facial expression was peculiar because of the asymmetry of the two sides of the face, the features of the right side being lower than those of the left, which is the opposite of the usual condition, being, in fact, very infrequent. Contrary to what might be expected in such a case, the right side of the nose, externally, was much larger than the left. The right eye also was larger than the left, but the ears were of the same size. Examination of the nares showed the left side normal, the passage being free, the turbinated bodies natural in size, color and position, and the mucous membrane healthy. The right side, however, had a much larger anterior opening and a very spacious inferior meatus, the inferior turbinated body being situated high up on the outer wall and very near the normal position of the middle turbinated.

It was of normal size, while the middle and superior bodies were smaller than those of the other side and all were paler than those of the opposite side. After a collection of thick mucus had been removed from the inferior meatus by syringing, a membrane was seen to be stretched over the posterior naris, though its extent could not be determined by anterior examination. On looking posteriorly through the pharynx, the membrane was found to extend entirely over the opening into the nose and was quite smooth, as though tightly stretched. By throwing the light into the throat with the head-mirror and reflecting it

into the posterior naris and looking through the nose, the obstruction was seen to be of uniform translucency and thickness, even to its attachments on all sides. By reversing this process, that is throwing the light into the anterior nose and using the rhinoscopic mirror, the same fact was easily verified. This examination also determined the membrane to be without bony structure, which was of great importance in considering the method of operation. There were small collections of mucus on the pharynx because of the imperfect circulation of air through that part.

After thoroughly applying a 20 per cent. solution of cocain, I applied the electro-cautery knife to the membrane anteriorly and readily pierced it; then burned widely on each side until there was quite an opening. Having burned all that could be reached anteriorly, I completed the extirpation through the mouth and pharynx with a long, curved cautery knife. A wash of boric acid (10 grains to 1 ounce), used four times a day, controlled the inflammation that usually follows such an injury. In two weeks, one or two small spots were again cauterized, and the patient was dismissed, being directed to continue the boric-acid wash. She breathed freely through the right side of the nose, and there was a noticeable difference in her voice. She was given a No. 22 (French scale) soft rubber catheter to use once a day in that side of her nose, to prevent contraction of the scar and subsequent occlusion. Six months later, she wrote that she was in excellent health, was very much improved in her speech, and had plenty of breathing space.

PROFESSOR SENN'S GIFT TO THE NEWBERRY LIBRARY.—Professor Nicholas Senn has purchased the entire library of the late Professor DuBois Reymond, and presented it to the Newberry Library, Chicago. The collection consists of 14,000 books, chiefly on physiology and allied subjects, and will form a very important addition to the medical equipment of the library.

THE PHILADELPHIA POLYCLINIC

Brief, practical, original articles, and news of general professional interest are solicited for publication in this journal. Contributions accepted will be paid for on publication, or, if desired, and so indicated on the manuscript, 250 reprints will be furnished in lieu of other compensation.

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PHILADELPHIA, APRIL 3, 1897

THE DISPENSARY ABUSE.

It is to be hoped that good will come soon out of the active agitation of the question of the dispensary abuse now going on all over the civilized world. It is obvious that without some radical check, existing evils will increase rather than diminish. None of the plans thus far proposed will meet all of the exigencies of the case, but when once suitable restraining measures are put in general operation it is only reasonable to anticipate that experience will tend to correct defects, to supply deficiencies and to suggest emendations. Without united action on the part of the medical profession or of those in charge of the dispensaries, however, little can be hoped for, as under such conditions patients would simply be forced from institutions adopting the restrictive measures to those not so doing. What the test of worthiness or unworthiness, and the best means of determination, shall be, is a question at present difficult of satisfactory answer; but it is clear that some system of inquiry or investigation will be necessary. A suggestive contribution to this vitally important subject is made by Dr. Walter Brooks Brouner (*Medical Record*, March 6, 1897, p. 335) in a paper read before the Society of the Alumni of

St. Luke's Hospital of New York City, in which are detailed statistics showing the number of persons treated annually in the dispensaries of that city. According to these figures, there were treated in forty-four institutions, 707,058 patients, who made in all 2,026,360 visits and for whom 1,039,632 prescriptions were filled for which sums ranging from ten to twenty-five cents were charged in the vast majority of cases. These figures relate only to the work done by general and not by special dispensaries; nor does it include that done by private dispensaries or by the smaller dispensaries connected with church work or by homeopathic, eclectic or other sectarian institutions. To remedy the abuses that only too obviously exist it is recommended that all institutions inaugurate a thorough and systematic effort to separate the worthy from the unworthy poor, after the following plan: Let each applicant for treatment be registered on a card, with name, age, address, occupation, salary and the number of persons dependent upon the applicant for support. For this registration a small fee should be charged. Let all applications be investigated by a corps of paid inspectors, whose salaries could be paid out of the proceeds from registration; the reports to be submitted to the clerk of the dispensary should state the opinion of the inspectors as to the worthiness of the applicant, based upon the truthfulness of the applicant's statement, environment, etc. As soon as the case has been passed upon, a printed notice could be sent to the applicant. For those unable to pay the registration fee this should be remitted, but the investigation should be made none the less. Acute or emergency cases could be treated at once and investigation made afterward.

Resolutions recently adopted by the Medical Association of the District of Columbia for the regulation of hospital and dispensary work, exhibit a similar trend. These rules

provide that all institutions for medical charity shall require from every applicant for relief in a hospital or dispensary a written certificate, to be obtained from Physicians to the Poor, the Board of Associated Charities, or any registered physician. Emergency cases are to be exempted from this rule. Sick and injured persons found upon the streets, in the stations or elsewhere, who require immediate treatment, shall be carried to the Emergency Hospital or to the nearest hospital having an emergency service, or to their homes, if so directed by the patient or his friends. Emergency patients shall not be detained longer in such institutions than the necessity of the case imperatively demands, but shall be discharged from the service and sent to their homes or to some public hospital, as the patient may elect. Members of the Association shall be entitled to the privilege of attending private patients occupying private rooms in any of the public hospitals of the city. In future the members of the medical staffs of hospitals, when attending medical or surgical cases in private pay-rooms, shall insist upon proper payment for their services, except in the case of such patients as are clearly unable to pay. Whenever the medical staff of a hospital or dispensary, or a majority thereof, resigns, and when after due hearing the Association finds that the resignations were for just and sufficient cause, it shall be forbidden for any member of the Association to accept a position on the staff of said hospital or dispensary. Whenever one or more members of the medical staff of a hospital or dispensary are dismissed, and when after due investigation the Association finds that such dismissal was without just and sufficient cause, it shall be forbidden for any member of the Association to fill the vacancy created thereby. Complaints should be made in writing to the Standing Committee, which after due consideration shall report its findings to the Association. A. A. E.

Editorial Notes

Consensus of Opinion Concerning Fluid Extracts, Tinctures, and Infusions.—In pursuance of its purpose to obtain authoritative expressions of opinion from leading pharmacists and physicians, THE PHILADELPHIA POLYCLINIC addressed to some thirty teachers of medicine, materia medica and pharmacy, in Philadelphia, New York, and Baltimore, the following query: "Is a druggist justified in dispensing a diluted fluid extract upon a prescription calling for a tincture, or upon one calling for an infusion?" We begin, to-day, printing the answers received, and we trust that their clearness and definiteness will go far to settle this most important question. To those who have so courteously responded to our request we return our sincere thanks.

SUBSTITUTION OF FLUID EXTRACTS FOR TINCTURES AND INFUSIONS. ANSWERS TO "THE POLYCLINIC'S" QUERY.

IN reply to the query, "Is a druggist justified in dispensing a diluted fluid extract upon a prescription calling for a tincture, or upon one calling for an infusion?" answers have been received as follow:

PROF. ALFRED STILLÉ, M.D., Philadelphia: "I have no hesitation in answering in the negative the question you propounded to me on behalf of THE PHILADELPHIA POLYCLINIC."

PROF. H. C. WOOD, M.D., Philadelphia: "No, provided the U. S. Pharmacopeia recognizes a tincture or an infusion of the drug called for. One difficulty of the situation is the lack of conformity by the profession with the U. S. Pharmacopeia. May I take this opportunity of calling the attention of your readers to a preparation which I think is entirely neglected, but which is the best general vehicle that we have, namely, the Elixir Aromaticum of the current U. S. Pharmacopeia."

PROF. CLARA MARSHALL, M.D., Philadelphia: "No."

PROF. JAMES TYSON, M.D., Philadelphia: "I declare emphatically *no*. It does not matter whether the substitute is as efficient or less efficient, he should dispense the medicine prepared as the U. S. Pharmacopeia directs."

PROF. JAMES C. WILSON, M.D., Philadelphia: "In my opinion, any form of substitution, without the previous consent of the prescriber, is wrong and

contrary to the principles which should govern the relations between the physician and apothecary."

PROF. GEORGE L. PRABODY, M.D., New York: "In answer to your question, as to whether 'a druggist is justified in dispensing a diluted fluid extract upon a prescription calling for a tincture, or upon one calling for an infusion,' it suffices simply to ask another, namely, is he justified in pretending that one thing is another? Of course, if he explains the situation to the intending purchaser, and offers him his fluid extract openly instead of the others, at least he does not deceive; but even then the propriety of his action might be questioned. If, by your question, you wish to know whether I think that the fluid extract is the practical equivalent of the others, that, of course, is another matter and, in my judgment, one that would not admit of a general reply."

DR. E. R. SQUIBB, Brooklyn: "You ask for my opinion on the question, 'Is a druggist justified in dispensing a diluted fluid extract upon a prescription calling for a tincture, or upon one calling for an infusion?' My opinion is, that he is not justified in either case: (1) Because the Pharmacopeia does not authorize any such practice, but is directed against all forms of substitution, (2) Because tinctures and infusions so made, in default of definite directions how to make them, can hardly be twice alike, and with the directions, by label, of the different fluid-extract makers, they must be equally liable to variation in therapeutic strength. (3) All such short cuts must be regarded as bad pharmacy, and the practice be liable to the charge of laziness or cupidity. Edmund Burke says, 'If prescription be once shaken, no species of property is secure when it once becomes an object large enough to tempt the cupidity of indigent power.'"

PROF. H. A. HARE, M.D., Philadelphia: "In reply to your letter, asking that I should send you my views in regard to the dispensing of diluted fluid extracts in place of tinctures, let me say that I do not believe it is possible to express a general rule which should govern this matter, because many fluid extracts have certain peculiarities which others lack, and while it might be unwise to dilute one fluid extract for the purpose of approximating its strength to that of a tincture, in another instance there might be no objection to such a procedure. In the case of fluid extract of digitalis, much depends upon the manner in which the fluid extract is made, and much depends, too, upon the directions which are given for its dilution. Notwithstanding this fact, if I had the choice of employing a tincture made according to the Pharmacopeial process by a druggist of limited experience and of employing a tincture made according to the directions provided by the manufacturer of a reliable fluid extract, in the preparation of which he had wide experience, I should certainly prefer the tincture made from the fluid extract rather than the pharmacist's product from the crude drug. In the case of the fluid extract of *nux vomica*, I believe that a tincture made from such an extract, if assayed, is infinitely preferable to the ordinary tincture as dispensed in the shops, for greater variations in its strength arise through variations in the quantity of alkaloid contained in the crude drug and in the skill of the manipulator.

Therefore, a fluid extract, the strength of which is determined by assaying, will provide the physician, when properly diluted, with a tincture, the strength of which will always be uniform. While I am not a believer in the employment of alkaloids to the exclusion of the preparations made from the whole drug, I think that we are daily recognizing the fact more and more that accuracy in dosage is the most important factor in producing good therapeutic results, and I think that anything which looks towards the employment of assayed drugs, or drugs possessing even a degree of reliability, is to be encouraged both by the physician and pharmacist."

PROF. REYNOLD W. WILCOX, M.D., New York: "The Pharmacopeia is the guide for the druggist, and I can see no justification for his conduct in dispensing diluted fluid extracts upon prescriptions calling for tinctures or infusions. The only argument is that of expense, which is also advanced for their failure to purchase a copy of the Pharmacopeia; most of them have none."

(To be continued.)

In the Clinics

Under the Editorial Charge of DR. OAKLEY W. HERMANCE.

DR. DAVIS stated that the ordinary uterine dressing forceps, with the thread filed smooth, is suitable for *packing the uterus*, as it has no tendency to bring the gauze with it when withdrawn.

* *

In the case of a child, 2 years old, presenting itself at Dr. Eshner's clinic with tumefaction of the right knee, a bulging prominence at the outer canthus of the left eye, another in the left temporo-frontal region, a third in the right mastoid region and also enlargement of the liver and probably of the right kidney, a diagnosis of *multiple sarcomata* was made and a fatal prognosis given. Not to neglect even the possibility of a doubt, however, inunctions of mercurial ointment, together with potassium iodid in doses of two grains thrice daily, and, for the relief of pain, small doses of sodium bromid, chloral and morphin, p. r. n., were prescribed.

* *

In cases of *eye-strain*, associated with disturbances of the retinal pigment epithelium,

irritation of the retina and congestion of the choroid, after the correction of the refractive error, preceded by prolonged mydriasis, Dr. de Schweinitz places great reliance upon the administration of certain constitutional remedies, particularly sodium iodid, cannabis indica or mercury biniodid. Although strychnin is frequently indicated as a systemic tonic, its administration in these cases will occasionally be followed by increased ocular pain and headache, due probably to an untoward action of the drug upon the irritated retina.

Important Announcement

MEETING OF THE AMERICAN MEDICAL ASSOCIATION.

To the Editor of the Philadelphia Polyclinic.

DEAR SIR:—May I call the attention of those of your readers who are thinking of coming to Philadelphia to attend the semi-centennial meeting of the American Medical Association, to be held June 1, 2, 3, and 4, 1897, that there will be, in addition to the American Medical Association, at the same time a large mercantile convention which will to a certain extent utilize a considerable number of rooms in the various hotels.

For this reason it is advisable that physicians who intend to be present at the meeting should write at once to one of the following hotels, engaging such rooms as they desire at the rates named:

HOTEL WALTON,	Broad and Locust Streets: \$1.50 and upwards per day, European plan; \$4 and upwards per day, American plan.
THE COLONNADE,	15th and Chestnut Streets: \$1 and upwards per day, European plan; \$3 and upwards per day, American plan.
THE LAFAYETTE,	Broad and Chestnut Streets: \$1 and upwards per day, European plan; Table d'Hôte: breakfast, 25 cents to \$1; luncheon, 75 cents; dinner, \$1.25.
THE BINGHAM HOUSE,	11th and Market Streets: \$2.25 and upwards per day, strictly on the American plan.
HOTEL STENTON,	Broad and Spruce Streets: \$2 and upwards per day, European plan; \$4 and upwards per day, American plan.
THE CONTINENTAL,	9th and Chestnut Streets: \$3 and upwards per day, strictly on the American plan.
THE WINDSOR,	11th and Filbert Streets: \$1 and upwards per day, European

THE STRATFORD,

GIRARD HOUSE,

HOTEL HANOVER,

ALDINE HOTEL,

plan; \$2 per day, American plan.

Broad and Walnut Streets: \$1 and upwards per day, European only.

9th and Chestnut Streets: \$2.25 to \$3 per day, strictly on the American plan.

12th and Arch Streets: \$2.50 per day, strictly on the American plan.

Chestnut Street above 19th: special rates to members of the American Medical Association, \$2.50 per day on American plan; \$1 to \$3 on the European plan.

The price quoted in each instance is for one person only. Rooms commanding only the lowest price are naturally limited in number. It is especially desirable that each member intending to be present at the meeting shall personally, or by letter, make his arrangement with the hotel at which he desires to stop.

It is worthy of note that the rate of \$1.50 per day at the hotel headquarters, the "Hotel Walton," is the rate for two people in one room. All these hotels are within a few blocks of the meeting places and most of them are within two blocks.

As a sub-committee of the general Committee of Arrangements has arranged clinical courses in all branches of medicine at the various teaching institutions and large hospitals during the week prior and following the week of the Association meeting, it has been thought that a considerable number of physicians would be glad to embrace the opportunity of brushing up upon the various branches by attendance on these courses, for which no charge will be made by the gentlemen giving them, and as their stay in this city will therefore be more than a few days, it has occurred to the Committee that some of the visiting physicians may wish to take rooms at some good boarding-house. The Chairman of the Committee on Reception and Accommodation, Dr. G. E. de Schweinitz, 1401 Locust Street, will be glad to send the addresses of such boarding-houses to gentlemen desiring to stay here for a week or more.

The large number of gentlemen who have already signified their intention of attending the meeting, the very large number of able and interesting papers already placed upon the program indicate that this will be the most important meeting which the Association has ever had, and it is hoped that every physician who is a member of a regularly organized County Medical Society will make an effort to attend.

The meeting halls for the various Sections are situated so close to one another that different papers in different Sections can be readily listened to during a single morning's session by those who do not wish to devote their time to one particular specialty.

Very truly yours,

H. A. HARE, M.D.,

*Chairman of the Committee of Arrangements,
American Medical Association.*

THE PHILADELPHIA POLYCLINIC

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APRIL 10, 1897

THE HOSPITAL, THE DOCTOR, AND THE COMMUNITY.¹

BY EDWARD JACKSON, M.D.

Professor of Diseases of the Eye in the Philadelphia Polyclinic; Surgeon to Wills Hospital.

THE difficulty seems to be that, at present, the hospitals are controlled by managers absolutely irresponsible to the medical profession, or to the general public—responsible to nothing but their individual ideas of right and wrong. Commonly, they are entirely ignorant as regards medical and surgical practice; and equally deficient in appreciation of the influence that such institutions exercise on the general profession and the community. The policy of these institutions is guided by crude social ideals formed often in very narrow spheres of life, supplemented as to technical points by the opinions and influenced by the private desires and interests of some few members of the medical profession.

The present system of hospital organization and government grew up at a time when the general profession thought it was not worth attending to, and was itself without organization. Now, the writer just quoted thinks it is impossible to change this. I believe that he is in error. I believe that, while it is no small undertaking, it is possible, and now easier than it ever would have been before, to make the hospital in all things the direct servant, and in nothing the enemy, of the community and the profession.

Before proceeding to outline certain points for discussion, a word should be said as to the rapidity of this extension of the hospital service. Any change in social organization works hardship to some portion of the community. If it be slow and natural, the hardship is comparatively insignificant. If it be more rapid, the hardship increases and is keenly felt. If it is more rapid still, hardship increases with even greater rapidity, and social

disorganization and revolution result. This is quite true of the change from the treatment of people by private physicians to their treatment in public hospitals. On this account, any artificial or forced acceleration of the movement should be opposed. Such forced acceleration is accomplished by the unnecessary multiplication of hospitals, the increase of their patronage by extensive advertising, or the urging strongly of the advantages of hospital treatment upon those who are satisfied with treatment at home. On this account, the following circular, printed in English and German, and apparently for general distribution, should, it seems to me, meet with a distinct and emphatic protest:

"THE BOARD OF TRUSTEES OF THE GERMAN HOSPITAL OF THE CITY OF PHILADELPHIA STRONGLY RECOMMENDS THE FOLLOWING ADVANTAGES OFFERED TO THE PUBLIC:

"Mill and Factory Owners, Lodges and Beneficial Associations can secure a bed at the German Hospital for 365 days by paying \$200, and, upon averaging the days, may have special patients in the hospital at the same time.

"SUBSCRIPTION BOOKS can be obtained by working people of both sexes up to the age of fifty, subject to the regulations of the hospital, whereby, on paying an initiation fee of one dollar, and monthly instalments of fifty cents, each subscriber may be treated, in case of sickness, entirely free of further charge. Heads of families and owners of factories should particularly recommend to their servants and employees to avail themselves of this excellent facility."

¹ Extract from a paper read before the Philadelphia County Medical Society, February 10, 1897.

The influences favoring the rapid increase of hospital services that we can most profitably discuss here are those exerted by members of the medical profession. One such influence, exerted by the ambition of the hospital physicians and surgeons for large clinics, has been so largely dwelt upon in most of the discussions of the subject that it need only be mentioned here. Another side, quite as worthy of attention, has not been so often spoken of. This is a tendency sometimes shown on the part of the family practitioner to regard his patients as his particular source of private income, while he is, at the same time, perfectly willing to assist them in any effort to get the benefit of free treatment from other members of the medical profession. At the Philadelphia Polyclinic, it has been a common experience to find a patient in a special clinic needing treatment also in the department of general medicine; and, after referring the patient to that department, to receive an angry letter from some general practitioner, who feels very badly treated, because one of his good patients, who always paid a moderate or fair fee, and whom he himself sent to the special clinic, has been referred for general treatment to somebody else instead of being sent back to him. In other words, there are medical practitioners—and apparently a good many of them—who regard it as perfectly legitimate to send their patients to a free clinic for advice regarding any particular ailment that they do not themselves undertake to treat. That such infidelity to common honesty and common professional interests sometimes overreaches itself, and always tends to the loss of private patients in the public clinic, is obvious. Perhaps it is not generally appreciated what an influence such an attitude on the part of many doctors exerts in determining the way that treatment at public clinics is regarded by the community. Sometimes, the instances of this seem very aggravated; as when recently a very well-to-do saloon-keeper from a neighboring city came to a hospital, instructed by his physician to get as definite advice as possible and bring it, with all prescriptions, to the physician, who would then carry out the treatment and be paid by the saloon-keeper for his services. In another case, the patient frankly stated that he was going to pay for his treatment at the hospi-

tal. When told that no charge was made for treatment there, and that patients could not be treated, he said that he understood that; that he did not mean to pay the hospital, but that he was going to pay the physician, who referred him to the public clinic, for each visit he made there. If this is the attitude of supposed members of the medical profession, what can we expect from laymen, who are not above the average of intelligence and thoughtful discrimination.

While we may be able to render important service in the way of diminishing the rapidity of the movement from private to hospital practice, all we can do in this direction will be far from solving the problem presented in the rapid growth of hospitals. If, as I believe, and as even those believe who see in it nothing but evil, this growth is destined to continue, it is evident that the medical profession must find some new relation to hospital administration, and that hospital administration is too important a matter to be left entirely to the control of those who, having little else to do, find in it a means of combating *ennui*, and an easy method of securing the self-satisfaction and respect that go with a supposed public service.

To render discussion definite and practical the following points are suggested:

That all hospitals, or other public charities receiving State aid, even to the extent of exemption from taxation, should be directly accountable to the State, and be controlled by definite legislative enactments, or better, by direct representation of the government in their boards of management.

That among the managers of every hospital there should be a certain proportion of members of the medical profession—not to represent their own or any other private interests, but as representatives of the profession, and directly chosen by it.

That the management of hospitals should be so changed as to effect a wider distribution in the profession of the opportunities of hospital chiefs, by limiting terms of service and breaking up the practice of giving many such positions to one physician or surgeon, whose assistants do the work that magnifies his reputation, while they grow gray in subordinate positions.

That medical men should consider, discuss and carry forward such plans of organization

as promise the same benefits as public hospital and dispensary services, yet avoid the extension of pauperism and the deficient compensation of the physicians who do the work.

That, in the organization of the Pay Hospi-

tal for Contagious Diseases in which this Society is now interested, its direct permanent participation in the choice of the management, and the opportunity for every one of its members to treat therein his patients, should be insisted on.

A BRIEF OUTLINE OF THE THEORY OF THE MOVEMENT OF THE NEURON AS APPLIED TO NORMAL AND PATHOLOGIC MENTAL AND NERVOUS PROCESSES.¹

BY F. X. DERCUM, M.D.

Clinical Professor of Nervous Diseases in Jefferson Medical College; Neurologist to the Philadelphia Hospital.

LET us now turn our attention briefly to elementary normal psychic processes; let us take up, for instance, the physiology of perception. What are the changes that take place in the neurons when a thing is felt or seen? Let us take a simple illustration, such as I have used in a previous paper. Let us assume that a sequence of sound-vibrations impinging upon the peripheral auditory neurons—that is, the nerve-cells of the spiral ganglion of the cochlea—produces in these neurons a change that affects the relations which their neuraxons—that is, their centripetal processes—bear to the nerve-cells of the auditory nuclei of the medulla, and secondarily to the neurons in the auditory area of the cortex. It is probable that the effect produced upon the latter is such as to cause them to retract, extend, or otherwise move their processes, and thus bring about a change in the relations which the various neurons of the auditory area of the cortex bear to one another. It is evident, further, that the same sequence of sound vibrations must always produce the same changes in the cortical neurons. In other words, given sounds are represented by certain combinations of the neurons with one another, and these combinations persist only so long as the vibrations impinge upon the auditory apparatus. An act of perception, therefore, consists of changes in the relations of the cortical neu-

rons with one another; these changes corresponding to, and depending upon, certain physical impacts upon the sensory organs. As a corollary, the combinations among the neurons so formed bear definite and fixed relations to the external world.

Now what is the physiology of a conception? Evidently, it consists in the reforming among the neurons of an old combination—that is, a combination the same as, or similar to, what was originally produced by a physical impression upon the organs of sense, but which is now produced by some other agency. Thus, a given note produces a certain combination among the neurons in the auditory area, and the forming of this combination is an essential part of the act of perception. To my mind, the act of conception consists in the formation among the auditory neurons of the same combination, without the actual impinging of the sound-vibrations upon the ear. The explanation of the reproduction of old combinations in the cortex, without external sensory stimuli, I will, for a moment, defer, and pass to the consideration of memory.

Various theories have been advanced to explain the phenomena of memory, but I will not take time to consider them, simply showing how readily the theory of the mobility of the neuron explains this remarkable property of mind. Let us recur for a moment

¹ Continued from p. 142, Vol. vi, No. 14.

to the illustration just used. We will say that a sequence of sound-vibrations has impinged upon the peripheral auditory neurons, and, in turn, has caused the neurons of the auditory cortex to move their processes. Now, other things equal, the degree of the excitation depends upon the intensity of the physical impact upon the auditory apparatus. Evidently the number of auditory neurons aroused into action must vary greatly, and it is probable that the movement does not cease in the auditory area of the cortex, but is diffused among neighboring areas, and even among those which are relatively distant. Now, we will suppose that a sequence of sound-vibrations has caused the auditory neurons to assume new relations with one another. These new relations will depend largely upon the fact whether or not a similar sequence of impressions has passed through those neurons before. If so, the old combinations will be re-formed and, as a corollary, there follows the recognition by the *ego* of the sounds as something heard before. Here we have an elementary illustration of the act of memory. According to this view, memory does not depend upon fixed cerebral structure, but upon the combinations of the neurons formed from time to time, being the same as, or similar to, those that have been formed before. Let me illustrate a little further: the excitation that has been produced in the auditory area of the cortex gradually diffuses in various directions—that is, there passes from the auditory center of the cortex, through the general cortex of the brain, a series of combinations among the neurons along the oldest and best traveled lines. At first a given sequence of musical sounds suggests merely a familiar air, but a moment later, when the movement has diffused as far as the visual areas of the cortex, old combinations are re-formed, which now give rise to visual memories, and, instead of merely the memory of a familiar air, we have

in addition a visual memory of an instrument, or a person with whom the air is associated, or, perhaps, of an operatic performance. I might enlarge upon this theory of memory, but time will hardly permit. Let us bear clearly in mind, however, that memory is not due to any constant condition of structure, but merely to the forming anew of old combinations among the neurons.

Other psychic phenomena also find a ready explanation on the theory here advanced. We can readily understand, for instance, how sequence of thought is explained by the movements of the neurons. If the neurons are constantly changing, if from the hour of awakening they are constantly responding to stimuli from without by changes in their relation to one another, it follows that the sequence of thought itself depends upon the sequence of these changes. Herein lies, also, the explanation of the continuity of thought. The direction of thought, and the association of ideas, must depend largely upon the frequency, and the consequent readiness with which special combinations among the neurons have been and are formed. Another idea also suggested in this connection is that not all of the neurons are active at the same time, but that the number varies greatly. However, I shall not pause to further consider this aspect of the subject.

I shall now call your attention briefly to the application of this theory to various pathologic conditions. Let us take up some of the simplest phenomena observed in insanity. What is an hallucination? An hallucination I would define as the spontaneous formation of an old combination amongst the neurons representing a former perception or conception, as the result of pathologic conditions, and not in response to normal stimuli either from without, such as physical impacts upon the sensory organs, or in response to normal stimuli from within, such as preceding and connected trains of thought, or other normal

psychic processes. The combination representing an hallucination reacts in such a manner upon the general neurons of the cortex as to give rise to the belief in the reality of the sound, vision or other special sense manifestations.

What is an illusion? An illusion is such a faulty combination of the neurons among each other as to lead to an imperfect recognition by the *ego* of the object perceived. Take, for instance, a case in which a cord or rope is mistaken for a snake. Here we have physical impacts normally received by the sensory apparatus, but, owing to a diseased condition of the neurons, these impacts lead to incomplete and erroneous combinations. We have already learned from the investigations of Berkeley, Andriezen and others, that the neurons, as a result of the action of various toxins, such, for instance, as alcohol, may become diseased, and especially their processes. There would, therefore, seem to be every justification for regarding illusions as dependent upon faulty combinations among the neurons.

What is the pathology of a delusion? Here again it is probable that the explanation is to be sought in disease of the structure of the neuron, and especially of its processes. It is characteristic of a delusion that the patient is incapable of accepting evidence in relation to his false belief, even when that evidence is properly presented. It would seem that in the case of a delusion it is impossible for the neurons to form such combinations with each other as will bring the patient into proper relations with the outer world. A simple illustration will make my meaning clear. The man who believes, for instance, that he has no mouth, in spite of the most direct physical evidence to the contrary, presents an instance in which a lesion has taken place among the neurons which renders them incapable of forming normal combinations in response to physical impacts

upon the sensory organs. Again, it may be that a correct combination representing a perception or a conception is formed, but in such case the neurons of adjoining areas are defective, in that they cannot bring this combination into normal relation with the general neurons of the cortex.

How can we explain such a symptom as delirium, or the mental condition seen in confusional insanity? Evidently, owing to disease of the neurons, the disease being transient and due to the presence of toxic products in the case of delirium, or being possibly structural in the case of confusional insanity, the neurons act irregularly and wildly, making constantly the most erroneous combinations with one another. Fully formed and partially or erroneously formed combinations rapidly succeed one another; probably also without relation to previously established lines of diffusion. It is easy also to explain the expansive mental state of mania and the depressive state of melancholia by merely supposing in mania that as a result of pathologic causes, generally toxic disturbances of nutrition, the neurons are acting with excessive rapidity and that a greater number of them are active than under normal conditions; and in melancholia that the movements are restricted and slower, and that a smaller number of neurons are active.

I had intended also to show the application of this theory to such pathologic conditions of the nervous system as are seen in hysteria and hypnotism. I have already instanced its application to one phase of hysteria, namely, hysterical paralysis. Let it suffice to say that all of the symptoms presented by hysteria, even the convulsions, can be explained by it. I will not, however, more than allude to this portion of the subject. To hypnotism, however, I will devote a few words, inasmuch as the theory of the mobility of the neuron is the only one that affords a rational explanation of this phenomena. Let

us recall to our minds for a moment the condition of the neurons during sleep: their processes are retracted. Hypnotism is partial sleep—that is, a state in which only a portion of the neurons have their processes retracted. Let me illustrate my meaning a little more in detail. Let us take a case in which hypnosis is induced by the ordinary method of staring fixedly at an object and in which, at the same time, the suggestion of sleep is made verbally by the operator. Now, by reason of the effort of the attention, expended through both the visual and auditory channels, the neurons of the corresponding regions in the cortex are thrown into certain relations with one another, relations that correspond first to the action upon the ocular apparatus, and, secondly, to the words of the operator received through the auditory channels. Very soon, by reason of the visual fatigue and under the auditory suggestion of sleep, the neurons of the visual area retract their processes and the partial sleep of hypnosis begins. Gradually the sleep grows deeper—that is, by reason of the same influence, the other neurons of the cortex gradually retract their processes, with the single exception of those by means of which the verbal suggestion of sleep has been received, namely, the auditory channels. In other words, the consciousness of the individual has been restricted to the narrow field of auditory perceptions. While in this condition, somnambulism is readily induced. In response to words from the experimenter, certain movements are induced among the neurons in the auditory cortex, and these movements, being communicated gradually to the neurons of other areas of the cortex, for instance, the motor area, may lead the individual to perform certain automatic acts, or manifest signs of cerebral activity, referable to other portions of the cortex.

I might still further elaborate this most interesting subject, but I must content myself

by merely indicating the method, by means of which hypnotism is to be explained. To my mind, the theory here advanced is the only one that satisfies the facts.

I have endeavored to present in this paper my own views as to the application of the theory of the movement of the neuron and in as condensed a manner as possible. Any one of the special applications I have indicated could be enormously expanded. My desire, however, was to present this evening an outline merely of the subject, and I think that all will agree with me that the theory of the movement of the neuron is not only plausible, but captivating in the extreme, as it makes clear and comprehensible much that otherwise cannot be understood at all.

Important Announcement

SPECIAL EXERCISES AT THE JUBILEE MEETING OF THE AMERICAN MEDICAL ASSOCIATION.

THE Committee of Arrangements has set aside an hour on the second day of the meeting for exercises to commemorate the founding of the Association in Philadelphia in 1847. The founders of the Association believed that it would raise the standard of medical education and combine the medical profession of the United States in one body. Dr. Davis, who is recognized by all as the moving spirit in the enterprise, will read a short paper, giving an account of the origin of the Association, and how the objects, for which it was founded, have been attained. The Committee has taken steps to secure the attendance, at the meeting, of the Presidents of the State Medical Societies and the Presidents of the State Boards of Medical Examiners as an illustration of the success attained through the instrumentality of the Association.

In addition to the address of Dr. Davis, there will be two or three other short addresses, to add to the interest of the occasion. It is desired that the Presidents of all State Boards of Examiners and of all State Medical Societies meet Dr. Davis a few minutes before his address, in order that they may escort him to the stage.

In the event of the President of any one of these organizations not being able to attend the meeting, he is requested to send, as an alternate, one of the ex-Presidents, in order that every State Society and every Examining Board may be represented upon this notable occasion.

Of the original members of the Association, there are still living: Dr. N. S. Davis, of Chicago, Dr. Alfred Stillé, of Philadelphia, Dr. John B. Johnson, of St. Louis, and Dr. David F. Atwater, of Springfield, Mass. The Committee hopes that these gentlemen will all be present, to take part in the meeting.

JOHN B. ROBERTS,
Chairman Committee on Anniversary Exercises.

THE PHILADELPHIA POLYCLINIC

Brief, practical, original articles, and news of general professional interest are solicited for publication in this journal. Contributions accepted will be paid for on publication, or, if desired, and so indicated on the manuscript, 350 reprints will be furnished in lieu of other compensation.

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PHILADELPHIA, APRIL 10, 1897

THE RECOGNITION OF INFLUENZA.

IT may be accepted as demonstrated by the experience of the past ten years that influenza, or catarrhal fever, is to be reckoned with, as among the perennial morbid flora of the United States. Communication between all parts of the world is now so easy and so rapid, that the *materies morbi*, whether bacterial or not, is everywhere being continually imported afresh, and in turn exported to other shores. We are not therefore to expect merely pandemics at intervals of almost a generation of men, but to recognize that the disease is permanently established among us. This teaching is not, indeed, something entirely new and strange. A few physicians have always held and taught that catarrhal fever was among the diseases to be kept constantly in mind even in the absence of epidemics or pandemics. In the *Medical and Surgical Reporter* for October 29, 1887, p. 567, the writer used the following language:

"To the classic paradox of the prognosis of catarrhal fever, 'the most fatal and the least fatal of all diseases,' may be added a similar characterization of its diagnosis—at once the easiest and the most difficult. The picture of a typical attack of influenza is so striking, that to mistake it were almost impossible. But typical attacks are by no means so frequent, save in periods of widespread epidemics, as the irregular, ill-defined, and misleading manifestations, which oc-

cur without attracting prominent professional or popular attention; epidemically, it is true, but at those periods of changeable and uncertain weather, when 'catching cold' is the ready explanation of a coryza or of a bronchitis."

At the time this opinion was published "widespread epidemics" were known to the writer only through his reading; since then he has had the experience of living through them; but this experience has entirely confirmed the views expressed in the paper from which this citation is made.

However, while before 1890, the common mistake was to call influenza "gastric fever," "typhoid fever," "meningitis;" or, mistaking the incidental for the essential, "pleurisy," "bronchitis," "pneumonia," and the like; nowadays we see the opposite error as well, much being termed "grip," that is not so. In fact "grip" has come to be the substitute of "malaria" among laity and profession, for the obscure in diagnosis.

In the article already quoted the diagnosis of influenza from pulmonary or bronchial catarrh of other origin, is thus indicated:

"Here, then, the amount of respiratory distress, out of all proportion to the physical signs discernible upon percussion and auscultation, the persistent cough, the excessive sense of constriction in the chest, the numerous unpleasant sensations referred to various portions of the respiratory passages, yet for which no adequate objective explanation can be found; the chilliness, the irregular fever, the rheumatic pain in back and limbs, the unaccountable depression, the exquisitely painful headache, the cutaneous hyperesthesia, often the precedent history of a coryza, sometimes coincident conjunctivitis, occasionally supra- or infra-orbital neuralgia—many or all these phenomena being easily elicited upon close observation or questioning—will inform the careful physician that he has more than an ordinary 'cold' to contend with.

"But it is when the catarrhal symptoms referable to nose, throat, or chest, are slight or unnoticed, that the greatest liability to error in diagnosis will occur."

The diagnosis from typhoid fever being then taken up and illustrated by cases, the further statement is made that:

"There are many cases in which the intestinal symptoms are early and more pronounced, in which the course of the illness is more prolonged, in which often¹ a malarial complication is present, giving a still

¹ This adjective should be modified in the light of more recent studies, both of influenza and of malaria, but we quote as written in 1887.

more close resemblance to typhoid fever in other respects, and the writer believes that these cases are a not infrequent source of erroneous diagnosis. He has, however, seen cases of genuine enteric fever, in which he has been convinced that catarrhal fever immediately preceded the development of typhoid fever, or that the two have overlapped, giving rise to some liability to confusion in the early days of the latter affection."

These old opinions are temporarily resurrected from the oblivion into which they fell as uttered, not for the mere satisfaction of establishing a sort of priority over similar views more recently published, but to enforce the point that influenza is not a transient visitation but a permanent affliction; and to show that the possibility of mistake, when one is not on the alert, is real and important, as illustrated by this paper, based upon experience covering a period of six years prior to the first of the recent outbreaks.

S. S. C.

Editorial Note

Hospital Trustees and Physicians.—That all hospital Trustees do not take the view of Physicians which is so just a cause of complaint in current comments upon hospital abuses, is evidenced by the following resolution, which we have great pleasure in publishing:

Resolved, That the Trustees of the Philadelphia Polyclinic and College for Graduates in Medicine, wishing to show their appreciation of the public services of physicians upon whose skill and faithfulness all successful hospital work depends, order that one of the private rooms in the Polyclinic Hospital be called the Room of the Mutual Aid Association of the Philadelphia County Medical Society, and direct the Superintendent to admit to said room without charge any member of the Mutual Aid Association of the Philadelphia County Medical Society who may be sick and require medical treatment; provided, that the officers of said Association first certify that the applicant's circumstances require such concession in regard to hospital charges; and that the rules of the Hospital in other respects in regard to the admission and duration of stay of patients be observed,

and that nothing in these resolutions shall be construed to prevent the use of the said room for other patients at regular rates when it is not occupied by a member of the Association named.

SUBSTITUTION OF FLUID EXTRACTS FOR TINCTURES AND INFUSIONS. ANSWERS TO "THE POLYCLINIC'S" QUERY.

Continued from p. 147, Vol. VI, No. 14.

IN reply to the query, "Is a druggist justified in dispensing a diluted fluid extract upon a prescription calling for a tincture, or upon one calling for an infusion?" answers have been received as follow:

PROF. WM. PEPPER, M.D., Philadelphia: "The present relation between the medical profession and dispensing pharmacist's depends absolutely upon a settled conviction that each and every prescription will be compounded in precisely the manner, and with precisely the substances, indicated by the physician directing it. It is the duty of the pharmacist to consult the physician if the prescription seems so unusual as to suggest accidental error. Otherwise not the slightest deviation is permissible."

PROF. ROBERTS BARTHOLOW, M.D., Philadelphia: "You ask me to reply to the following question: 'Is a druggist justified in dispensing a diluted fluid extract upon a prescription calling for a tincture, or upon one calling for an infusion?' Clearly not. It has been shown 'that it is not possible to make fluid extracts which, on proper dilution, will give tinctures corresponding in all essential particulars with those made in the regular way.' (*Digest of Criticisms on the U. S. Pharmacopoeia, Seventh Decennial Revision* [1890].) Tables have been published to demonstrate the variations which must exist between the fluid extracts and the tinctures in strength. The objections to substituting a diluted fluid extract for an infusion are sometimes less important since the strength and dosage may be the same; in other cases the difference between watery and alcoholic preparations is a difference of composition. There is, however, always an impropriety in the practice of 'substitution' in prescription-compounding, whether the result may, or may not be the same. Besides its irregularities and moral delinquency, it leads to general looseness of method in pharmaceutical work."

PROF. H. H. RUSBY, M.D., Ph.G., New York: "The official requirement is that a certain result be reached. Although the Pharmacopoeia describes processes for reaching these results, the requirement lies in the result and not in the process. Hence, in those cases where the result can be reached by diluting a fluid extract, this process is permissible. All pharmacists should know which cases these are, and all physicians would do so, if *Materia Medica* were taught as it should be in medical colleges."

PROF. WILLIAM OSLER, M.D., Baltimore: "In reply to your question of March 29th, I should say, *certainly not.*"

PROF. JOSEPH P. REMINGTON, Philadelphia: "I have no hesitation in replying that the practice of dispensing tinctures, infusions, decoctions and other liquid preparations by diluting fluid extracts is a very reprehensible one. It is true that the pharmacopeia in a few cases directs the use of fluid extracts in the preparation of other liquids. But it must be remembered that in each case, the formula for *making the fluid extract* is given in detail in the book, and hence it is not improper in such cases, because it is known that no harm can result. But the evil effects of departing from the directions of the Pharmacopeia and of sacrificing efficiency for the sake of convenience, are manifest and call for earnest efforts to stop the practice. It may do no especial damage to make tincture of ginger 1:5 from fluid extract of ginger (1:1) by diluting it with sufficient alcohol, the alcohol being of the same strength in both cases. But as every one practically knows, indiscriminate dilution frequently results in making a cloudy liquid due to precipitation, and precipitation may mean the throwing of some of the active constituents out of solution. Then again, fluid extracts are often bought from a manufacturer, and there is usually much difference among the various manufacturers in the menstruum used for making the fluid extracts. Thus a druggist using one make of fluid extracts at one time and another at another time, would never be able to say that his tinctures or diluted preparations were up to the official requirement or of uniform strength. Physicians are rapidly learning to discriminate the careful, conscientious pharmacist who makes his preparations strictly up to the official requirements and who takes an honorable pride in making his preparations, from one who is lazy or careless, and whose sole object is to make a preparation which will *appear* right, caring little whether or not it *is* right."

PROF. J. H. MUSSER, M.D., Philadelphia: "I certainly do not think a druggist is, under any circumstances, justified in dispensing a diluted fluid extract when either a tincture or an infusion is called for. I am satisfied that practices of this character, conducted by the larger number of pharmacists of this city and country, has brought about the great reaction against them, and in favor of using prescriptions made by the wholesale pharmacists. It unfortunately, too, has led largely to the custom of prescribing the proprietary remedies and the formulæ of wholesale druggists. It is unfortunate for the physician and druggist, and, of course, the patient suffers secondarily. The druggist suffers only the least in the loss of his profession and of money. The physician is stultified, while the sufferings of the patient need not be dwelt upon."

PROF. JOHN J. ABEL, M.D., Baltimore, Md.: "It appears to me that in case of an emergency the making of a tincture from a fluid extract might be allowed. A clear judgment can not be given until the most used tinctures, prepared in the present official way, are compared as to their content in active principles with such as have been prepared by simply diluting the fluid extracts. I venture to say that in many cases marked differences would be found. Until investigation has settled our doubts it would not be advisable for pharmacists to depart from the present authorized official methods."

PROF. JOHN V. SHOEMAKER, M.D., Philadelphia: "A fluid extract cannot be made to represent exactly a tincture or infusion by the simple addition of a certain proportion of water. Drugs of vegetable origin are of very complex composition, and many of them contain several principles which are physiologically and therapeutically active. These different ingredients exhibit a decidedly different degree of solubility in the various menstrua. Again, different specimens of the same drug vary appreciably as regards the proportions in which their distinctive active principles are present. Owing to these facts as well as to differences in the mode of preparation there will be a chemical distinction between a tincture and a diluted fluid extract. Furthermore, pharmacists should be governed by the directions of the United States Pharmacopeia. If a tincture is called for, the preparation furnished should be the product resulting from the faithful observance of official processes."

(To be continued.)

In the Clinics

Under the Editorial Charge of DR. OAKLEY W. HERMANCE.

DR. DAVIS, in a recent lecture, stated that he had had great success from the use of cold packs applied to the chest for the treatment of *pneumonia* in young infants. He advised that the water should be about the temperature of the room, *i. e.*, about 70 to 75° F. Ice bags applied to the spine or chest he considers too severe for infants.

* *

DURING the past winter quite a number of infants affected with *pertussis* have been brought to the out-patient clinic in the department of obstetrics. Dr. Wells has found that the administration of phenazone combined with sodium bromid, in as large doses as can be safely given, has proved more successful than any other line of treatment.

* *

In a previous communication Dr. de Schweinitz called attention to the value of copious irrigations of *potassium permanganate*, 1:2000, in the treatment of *purulent (gonorrhœal) conjunctivitis*. Subsequent experience has confirmed his good opinion of this drug. At least a pint of the solution should be passed through the conjunctival

cul-de-sac in a gentle stream, preferably by means of an irrigator, four or five times a day, according to the indications. Formic aldehyde, 1-5000, which has achieved a just reputation in the treatment of various types of purulent conjunctivitis, has the disadvantage of causing severe smarting. In some recent cases of conjunctivitis neonatorum the drug has been employed in a strength of 1-6000, with happy results, although it is not impossible that the faithfulness with which the solution was used may have contributed as much to the result as any antiseptic property which it has—a property which in a strength of 1-6000 must be exceedingly feeble.

Current Literature

Purulent Ophthalmia of the New-Born.—CHARTRES (*Archives Clin. de Bordeaux*, No. 12, 1896, p. 570) draws the following conclusion from his elaborate study:

(1) The microbes found in purulent ophthalmia of the new-born are very numerous.

(2) Calculation of percentages from cases observed shows that

In 36 per cent. gonococci occur alone.

In 8 per cent. gonococci are associated with streptococci.

In 12 per cent. Loeffler's bacilli are found.

In 12 per cent. microcci are found.

In 8 per cent streptococci alone occur.

In 4 per cent. streptococci are associated with Loeffler's bacilli.

In 4 per cent. streptococci are associated with undetermined bacilli.

In 4 per cent. staphylococci occur alone.

In 4 per cent. undetermined bacilli occur.

In 4 per cent. the bacilli of Weeks are found.

In 4 per cent. sarcinae occur.

(3) The gravest cases are those in which streptococci are found, whether in pure culture, or associated with gonococci, or with certain bacilli, among others the bacilli of Loeffler. These cases may terminate in loss of vision, and are frequently associated with an intercurrent disease, which may carry off the child, notably, broncho-pneumonia.

(4) Purulent ophthalmia due to the gonococcus only, is usually relatively benign and yields readily to treatment.

(5) Bacteriologic examination at the begin-

ning of the attack is important, especially for prognosis.

(6) The treatment, which should be energetic from the first, must be of a mixed character. Irrigations, with solutions of potassium permanganate, boric acid, or the like, should be combined with cauterization by silver nitrate. One is thus more sure of destroying all the different species of microbes which take part in the causation of purulent ophthalmia of the new-born. C.

To Prevent the Deposition of Moisture on Instruments Introduced into Mucous Cavities.—Exceptionally it may be difficult or undesirable to heat mirrors for laryngoscopic or other analogous examination.

To prevent the deposition of moisture that would ordinarily take place upon the cold surface of the reflecting instrument, Kirstein (*Deutsche medicinische Wochenschrift*, February 18, 1897, p. 123) recommends that the surface be first rubbed with a small bit of ordinary soft soap and then gradually polished by circular movements with a dry cloth. If the soap is only partially rubbed off, a surface is left that is turbid, but which becomes transparent when moisture, as from the breath, is deposited upon it. A. A. E.

PRESIDENT THWING, of the Western Reserve University at Cleveland, writes in the April *Review of Reviews* on "How to Choose a College." His article deals with the practical questions likely to present themselves to students about to select a college home for four years, or to the parents of such students, and is characterized by fullness of information and general breadth of view.

News Items

The *Columbus Medical Journal* has removed from 150 E. Broad to 68 Buttles Avenue, Columbus, Ohio.

PATHOLOGICAL SOCIETY OF PHILADELPHIA.—The Annual Conversational Meeting of the Society will be held in the Upper Hall of the College of Physicians, Northeast Corner Thirteenth and Locust Streets, on Thursday, April 22, 1897, at 8.15 P.M. Dr. Ludvig Hektoen, Professor of Morbid Anatomy in Rush Medical College, will deliver an address, entitled "Segmentation and Fragmentation of the Myocardium." After the meeting a reception will be tendered Dr. Hektoen at the University Club, 1316 Walnut Street. A cordial invitation is extended to attend the meeting and the reception.

THE PHILADELPHIA POLYCLINIC

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APRIL 17, 1897

FRACTURE OF THE LOWER END OF THE RADIUS WITH FORWARD DISPLACEMENT.—ILLUSTRATED BY SPECIMENS, PHOTO- GRAPHS AND CASTS.¹

BY JOHN B. ROBERTS, M.D.

Professor of Anatomy and Surgery in The Philadelphia Polyclinic; Professor of Surgery in the Woman's Medical College of Pennsylvania, etc.

My object this evening is not so much to discuss the pathology and treatment of this injury as to show some casts and photographs of the lesion, which I purpose placing in the Mütter Museum, and to exhibit to the Fel-

low in the profession of the necessity for *very forcible primary reduction* of the inferior fragment in the usual fracture of the lower end of the radius with backward displacement. It seems as if there exists an even



FIG. 1.

[Photograph of cast of R. W. Smith's case, which is described in his classic work on fractures.]

lows three interesting specimens already belonging to that valuable collection.

A recent study² of this fracture has convinced me that its occurrence is not very rare, and that its recognition is not general. Within a few years, I have seen four cases, all of which had previously been under professional care. Yet in none of them had the deformity been reduced, and in the history of three, if not of all four, it was evident that the true character of the injury had not been suspected.

Well-known is the widespread ignorance

greater degree of ignorance or forgetfulness of the possibility of the displacement occasionally being forward instead of backward. If the possibility of such displacement is generally recollected, it must be that the necessity for forcible primary reduction is not appreciated, for in the cases seen by me and in many of the photographs here exhibited the deformity had not been reduced.

This lesion, sometimes termed "Smith's fracture of the radius," at other times called "reversed Colles's fracture," may be produced, if my experimental and clinical

¹ Read before the College of Physicians of Philadelphia, April 7, 1897.

² *Trans. American Surgical Association*, 1895

studies are correctly interpreted, in three ways:

(1) Tearing off of the lower end by a cross-breaking strain exerted through the posterior ligaments during extreme flexion, when the force is applied to the back of the hand in front of the anterior surface of the radius. (2) Crushing of the anterior portion of the bone between the wrist-bones and the shaft, or mutual penetration of the diaphyseal and epiphyseal portions. (3) Rupture of the bony tissue of the weakest point by decomposition of the force to which the limb is subjected. It is possible that there may be at times a combination of more than one method.

In a recent case, treated by my colleague, Dr. M. J. Stern, at the Polyclinic Hospital, the character of which was proved by an immediate skiagraph taken by Dr. Stern, the boy seemed to have received the blow on the palmar surface of the ulnar side of the hand. He was mounting a horse and fell over on the opposite side of the animal. When examined shortly afterwards, the damage done to the skin of the hand by impact on the ground was found on the palm of the hypothenar eminence and on the ulnar border of the hand. The displacement forwards of the lower fragment and the overriding of the upper fragment upon its dorsum are beautifully shown in the skiagraph, which Dr. Stern has brought here to-night. Forcible reduction was at once performed and the boy now has an excellent arm with little or no deformity.

It can be understood, I think, how such a blow might tend to displace the radial base forward rather than backward. A fall directly upon the whole palm usually tends to forcibly extend the wrist-joint and is one of the methods of producing the classic fracture with backward displacement. This blow coming on the ulnar portion of the hand might readily, it seems to me, drive the

lower fragment forward without extending the wrist-joint.

The deformity in this fracture is quite different from that in the ordinary injury with backward displacement. The degree naturally varies with the amount of displacement and the obliquity or transverse character of the line of fracture. It may be almost ab-

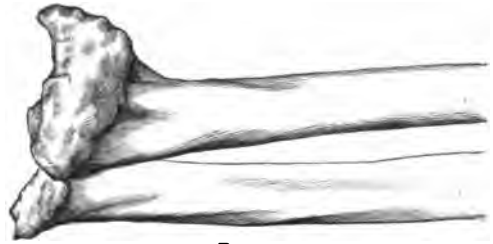


FIG. 2.

[Specimen in Museum of Trinity College, Dublin, Ireland.]

sent or be very great. Sometimes the displacement is almost altogether forward; at other times, it is comparatively slight forward but very marked in a radial direction. The photographs here shown illustrate these variations very well. The Edinburgh and New York specimens have marked forward displacement; the specimen from the Royal College of Surgeons in Ireland marked lateral displacement towards the radial aspect of the forearm.

The deformity of the forearm and wrist is characteristic in instances where the carpal fragment is much displaced forward. An elevation is seen across the back of the forearm, running obliquely upward from the ulnar to the radial side. The ulnar portion of this elevation is the more prominent, and is made by the head of the ulna, which was left behind when the carpal fragment of the radius with the attached hand was carried forward by the injury. On the radial side of the limb the elevation is further from the hand and is less prominent. It is due to the lower end of the upper fragment of the radius.

This dorsal prominence is quite different in appearance from the hump on the radial

side of the dorsum seen in the fracture of the lower end of the radius with backward displacement of the carpal piece. In the latter case, the elevation is great on the radial half of the limb, and the surgeon's finger carried along the back of the shaft of the radius can readily feel the ledge of bone corresponding to the dorsal surface of the lower fragment. The ulna makes little or no prominence on the back of the forearm in the classic fracture, though in both forms it is apt to be prominent at the ulnar edge of the limb, because the outward displacement, common in both instances, carries the hand away from the head of the ulna.

In the fracture under consideration, the surface slants downward from the dorsal elevation toward the back of the hand, whose plane is at a lower level than that of the forearm, but more or less parallel to it.

This slant in the surface below the dorsal elevation causes somewhat the appearance of a furrow across the forearm, which is deeper just below the head of the ulna. Pressure with the fingers will make this hollow more evident, and show that the lower end or base of the radius occupies a position more anterior than normal. This sulcus is, as the

elevation, a little further from the hand on the radial side.

The lower fragment will usually be felt as a hard mass, under the flexor tendons and evidently not belonging to the ulna.

Lateral deviation towards the radial side of the forearm is probably usual. This specimen from the Mütter Museum is an extreme example of this lateral deformity due to a crushing or absorption of an oblique line of fracture.

The tendency to lateral displacement causes the radial styloid to ascend towards the elbow in this fracture as in that with backward displacement of the lower fragment.

The treatment is simple if the fracture be only recognized—immediate and *forcible* reduction to restore the contour of the lower portion of the radius, followed by the application of a moulded splint of metal or gypsum to the palmar surface, or of a straight splint to the dorsum. There is little or no danger of muscular displacement. The displacement is due, as in the classic fracture, to the vulnerating violence, not to muscular action. The so-called Bond's splint, often injudiciously employed in the classic fracture, is equally undesirable here.

SCARLATINAL SYNOVITIS.

BY M. A. BUNCE, M.D.

Clinical Assistant in Medicine in the Philadelphia Polyclinic, etc.

JOINT complications appearing in the course of many of the infectious diseases have not infrequently been met with. Though more commonly associated with, yet they are in no sense characteristic of scarlatina. Though not essential, a rheumatic history, family or personal, can often be obtained and would seem to be a factor in rendering the synovial membrane more vulnerable to the infecting toxine. In a case of typhoid fever recently under care, the left shoulder joint became painful on the twelfth day of

the disease, lasting in the neighborhood of eighteen hours. The same individual had an attack of acute rheumatism three years ago. When infective synovitis complicates scarlatina it is variously termed scarlatinal arthritis, synovitis, and from the analogy of its clinical picture and therapeutic response, scarlatinal rheumatism. Of 4,034 cases of scarlet fever reported by two observers 3.2 per cent. had articular involvement, though in some instances it was much higher, and in another series of 5,000 cases suppuration alone

occurred in nine of them. The following case is a typical one excepting the early onset, and perhaps the severity of the joint symptoms:

F. D., well built, male, æt. 8 years, had an attack of diphtheria in 1892. When first seen, April 11, 1894, he had a history of having been unwell for about thirty-six hours; on the above date a profuse reddish-yellow punctate rash was present upon the face, body and extremities; the mucous membrane of the pharynx and tonsils was somewhat reddened, though no subjective symptoms relative to this latter were complained of. Papillæ of tongue were not prominent, the pulse and temperature were characteristic of scarlet fever. On the 12th and 13th inst. the restlessness was more marked, and at times he would cry out; on the 14th inst. the eruption of a sudden disappeared, leaving the patient actually, and by contrast, markedly anemic; right foot in the position of talipes varus, the ankle joint swollen and painful; later, on the same day, the corresponding hip joint was the seat of pain. Pulse somewhat feeble and mild delirium present; 15th inst., most of the larger joints of the extremities were painful and swollen, presenting a typical picture of acute rheumatism, the slightest movement causing him to cry out; 19th inst., up to this time there was an abatement in the symptoms, then the knee and wrist joints were freshly invaded with also a return of the mental symptoms. A cardiac murmur now developed, characteristic of the mitral regurgitant, which was clearly intensified by the anemia present. Up until the 30th inst. there recurred, after intervals of freedom, irregular involvement of the joints with decreasing intensity, convalescence uninterrupted.

From a clinical standpoint two types of joint involvement are recognized.¹ (1) A transient synovitis, polyarticular, usually of a mild grade, appearing with the greatest frequency from the fifth to the ninth day, though it may be postponed as late, or later, than the twenty-eighth day, the susceptibility increasing with the age. Ashby² views this class in the light of

a septicemia, though no definite enlargement of the spleen is present in the majority of instances.

(2) A pyarthrosis, often monarticular, noted only in certain epidemics, ordinarily presenting itself about the third or fourth week. There is no heart complication and the contents of the joint are purulent from the onset,³ and are attributable to septic emboli. Streptococci and micrococci have been found in cultures made from the fluid withdrawn from the joints in both types.

In the scarlatinal and even the average healthy pharynx there undoubtedly exist a variety of micro-organisms. It is now generally conceded that a streptococcus is the cause of scarlet fever, though at different times micrococci and minute bacteria were so constantly present in the cultures from the throat and desquamated epiderm that individual observers were convinced of their specific nature. It would appear that an ordinary attack of scarlet fever in a susceptible though otherwise normal individual is due to a streptococcus endowed with the peculiar property of producing a scarlatinal efflorescence. Of the irregular forms, scarlatinal synovitis may be explained (1) by the scarlatinal infection precipitating latent rheumatism; (2) by a dual infection, for instance, with streptococcus, having like the rheumatic toxine a predilection for the synovial and fibrous tissues; (3) a distinct infection similar to but not identical with rheumatism or scarlatina. The same pathological conditions are present, though brought about by a different species of micro-organism. A close relation exists between scarlatinal synovitis and rheumatism; the clinical picture in the absence of the eruption is very suggestive of acute rheumatism; the implication of the endocardium, the occasional association of chorea as a sequel;⁴ swelling of the dorsa of the hands and feet, due probably to an

¹ Hodges, *Lancet*, p. 1145, 1894, v. ii.

² *Loc. cit.*

³ Henoch, *loc. cit.*

⁴ Barlow, *B. M. J.*, 1883.

effusion into the tendon sheaths;⁵ purpura,⁶ and lastly, the benefit following the administration of the salicylates. If the infection were the same as that of articular rheumatism a much greater percentage of the cases of scarlet fever would present articular symptoms, but that it is capable of exploding latent rheumatic tendencies would seem feasible, giving the association of the above symptoms more weight than that of a mere coincidence.

The interesting features of the case reported were:

(a) The sudden disappearance of the scarlatinal eruption on the third day of its existence with the advent of the articular symptoms; the slight desquamation compared with the intensity of the dermatitis.

(b) The picture of acute articular rheumatism presented, migratory involvement of the joints, irregular fever, implication of the endocardium; anemia, maternal history of rheumatism.

(c) The mild pharyngeal symptoms, urine free from albumen, sweating was not marked.

(d) The necessity of being on the *qui vive* for accidental rashes appearing in the course of acute rheumatism and the value of an antecedent attack of scarlatina.

Hodges commenting on the evanescent character of the synovitis says that "if not under observation many of the articular symptoms would escape notice, or would not be deemed of sufficient importance in themselves to be brought under medical care;" on the importance of delirium, because during it often no complaint is made, and swelling of the joints may be first noted; it is such a frequent precursor of an arthritic attack as to lead one actually to expect it.

⁵ Hodges.

⁶ *Loc. cit.*

Write to Dr. Stern, Secretary, for a copy of the new announcement of The Philadelphia Polyclinic.

Current Literature

REPORT ON NERVOUS AND MENTAL DISEASES.

BY A. FERREE WITMER, M.D.

I. Consciousness in Epileptic Attacks.—Dr. Bannister, writing in the *American Journal of Insanity*, concludes that (1) the epileptic discharge in the cerebrum may in some cases not involve all, or at least not to any extent, those organs or parts concerned in psychic functions so as to seriously affect or abolish consciousness. The author defines consciousness as a "vivid" sense of being, with a knowledge of one's thoughts and actions continuous with that in the normal state. He claims that not only in partial epilepsy but also in the well marked attacks of major epilepsy consciousness is frequently maintained.

(2) Also, there may be states of epileptic double consciousness in which the mental functioning in the abnormal condition is less perfect than in the normal state.

(3) Also, that the post-epileptic attacks of violence, while attended with excessive morbid irritability and loss of control, and generally with a failure in the higher moral inhibition, need be accompanied by no more impairment of consciousness than would naturally be caused by intense emotional disturbances in other conditions.

(4) Also, there may be a true or apparent automatism not attended with any loss of general consciousness, and due, possibly, to the rapidity of some psychic reflexes exceeding the limit of the reaction time necessary for their conscious recognition.

(5) Also, the definition of epilepsy which makes loss of consciousness an essential, is an arbitrary one, not supported on pathologica or clinical data, either in the ordinary convulsive phase of the disease or its psychic manifestations.

II. Treatment of Apoplexy.—An editorial in the *Therapeutic Gazette* for March 11th, reviews the recent work on this subject by Hills. The treatment of this condition, it should not be forgotten, will vary with the cause. An apoplexy due to a hemorrhage by a thrombus or by an embolus is naturally differently treated from one caused by a ruptured arterial wall due to syphilis or the

changes incident to old age. The symptoms should be carefully noted and the diagnosis made accordingly. In the latter case consciousness is usually lost, pupils are contracted, there is vomiting, and the febrile movement is apt to be greater. Should the symptom complex indicate hemorrhage, venesection should be performed and surgical interference for the removal of the clot be seriously considered.

Free purgation, the author asks the reader to recall, will deplete the brain, and should be early resorted to, while the application of cold to the head fails to cause constriction of the cerebral or, indeed, of any other artery.

III. General Paralysis in two Sisters.—(*Journal of Nervous and Mental Diseases* February, 1897). Dr. A. Hoch is the author of this paper. The two girls, previously in good health, gradually developed the symptoms of general paralysis; the one at ten, and the other at fifteen years of age. A neuropathic heredity was traced: the father at forty-five had the appearance of a man of eighty; he had been unable to work for twelve years; had a marked luetic history; the mother was of nervous temperament. In both sisters the clinical course of the disease was that of a progressive simple dementia, lasting in one case for six years; in the other, not yet dead, for four years.

An autopsy proved the diagnosis as the lesions were those commonly seen in general paralysis. In the cerebellar cortex the Purkinje cells were greatly degenerated and the cortical neuroglia increased. In the cord the anterior and posterior pyramids were affected. The degeneration could be followed into the pons but was apparently lost in the crura. From the upper dorsal cord upward the tract of Gower was degenerated, the degeneration becoming less marked in higher cervical regions. The degeneration is probably due to changes in the gray matter of the cord, which changes were found in the upper portions in the center of the gray matter on each side.

The author concludes that while the group of cases that Homen describes, differs essentially from general paralysis, yet it may be impossible to differentiate the two diseases clinically.

Bacteriology of the Hair.—In a recent paper, Brocq, of Paris (*Journal of Cutaneous*

and Genito-Urinary Diseases, September, 1896), in speaking of the bacteriology of the hair, states that there are various microbes found in it. He gives the following six varieties, which are quite constant germs: (1) a white fungus; (2) a yellow fungus; (3) a bacillus subtiliformis; (4) a boat-shaped bacillus, which is found to stain with difficulty; (5) a special micrococcus, which is designated by Sabouraud provisionally under the name micrococcus cutis communis; and (6) the spore of Malassez, the bacillus which Unna calls the flask bacillus, and which he calls the bacillus asciformis. The author states that the latter two microbes, which are found in persons affected with seborrhea, but not attacked by alopecia areata, are the most important of the group, but that no one of the group would have the importance of a causal agent in disease. J. A. C.

The Pathology of Itching and Its Treatment by Large Doses of Calcium Chlorid.—

Regarding itching as the "expression—i. e., the symptom or evidence—of some irritation either of the nerve endings or of the centripetal (sensory) nerve fibrils," Saville (*Lancet*, August 1, 1896) explains primary itchings or pruritus as probably dependent upon some blood change, as it is usually generalized in its distribution and varies in intensity from hour to hour or from day to day. In such diseases as diabetes, gout, and jaundice, blood changes are known to be present; and likewise when certain drugs, such as morphine, are introduced into the blood, itching is produced. Secondary itching, or that which accompanies or is produced in consequence of eruptions of the skin, as, for instance, eczema, being localized in accordance with the eruptive areas, a fact explained by the involvement of the terminal nerve branches. These considerations, the author states, led him to use calcium chlorid in both varieties; and he found that, in order to be effective, it was necessary to give large doses—twenty grains or more three times a day—the larger dose often succeeding when the smaller one fail. J. A. C.

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PHILADELPHIA, APRIL 17, 1897

COMPULSORY NOTIFICATION OF TUBERCULOSIS.

As the readers of THE POLYCLINIC doubtless know, the New York Board of Health has declared pulmonary tuberculosis an infectious and communicable disease and it has, as a result, established a rule requiring physicians to report all cases of the kind coming under professional observation. We wish to commend this action of the Board as in the line of modern sanitary progress and to express the hope that similar action may soon be taken in other large cities.

Concerning the first part of this proposition there will be little if any difference of opinion. Whatever the antecedent conditions that predispose to the infection, such as heredity, previous disease, impaired nutrition, unfavorable hygienic surroundings, etc., it is the established consensus of opinion that the specific morbid process will not develop in the absence of the tubercle-bacillus.

While the importance of correcting or avoiding, so far as possible, the predisposing influences is thus cordially admitted, it is obvious that not less consideration will have to be given to preventing the dissemination of the exciting cause. It is known that

tubercle-bacilli are only thrown off with the discharges from infected tissues, so that if proper attention is given to the disposal of such discharges the dissemination of the disease will be largely restricted.

In the vast majority of cases the medical attendant is perfectly competent to direct the necessary prophylactic measures to be pursued. He is, however, not always able to ensure their being carried out. In a considerable number of cases the patients will not obey, either from indifference or from ignorance; and in still others they are without the necessary means and materials to comply with the physician's directions. Further, there are many tuberculous persons who will not voluntarily seek medical attendance. For these several reasons, inasmuch as in the slums of large cities poverty and its resultant ignorance and filth are so inveterate, and the fashionable palliatives so hopelessly inadequate, there will long be a considerable proportion of the population that, without some form of official inspection and supervision, will constitute a constant source of contamination and infection.

The problem thus presented is a large one and while its final solution must be sought through radical remedy of unjust social conditions, immediate action must be taken along the lines of a broad and intelligent municipal hygiene; the execution of which can be better effected by the systematic and disciplined efforts of a trained body of properly authorized officials than by the sporadic and individual action of a larger number of medical men. The question is thus one largely of organization and authority. The conquest cannot be made with a single skirmish, but will demand constant, unrelenting attack. The danger is a colossal one, none the less so because we have become familiar with it; and the remedy, to be effective, must reach deeply.

There is no ground for conflict between

the medical man and the Board of Health, provided the agents of the latter are not permitted to abuse authority. Any earnest effort to diminish the ravages and the spread of a disease so prevalent and so fatal as tuberculosis will be sure to receive the hearty co-operation of the medical profession. The care of the patient will remain in the hands of the medical attendant; that of his surroundings belongs naturally to the Board of Health.

There need be and there will be no real interference with personal liberty; but liberty must not be construed as license and no member of a community should be permitted to indulge in practices or to neglect the observance of precautions to the prejudice or the detriment of his fellows, as concerns their comfort or their welfare or their happiness. The object of compulsory registration of tuberculosis must be viewed as an effort to remove that menace that the careless, the filthy, the ignorant and the helpless constitute toward their fellows, and the interests of the individual must be made subordinate to those of the many.

A. A. E.

Editorial Notes

Consolidation of Medical Colleges.—The proposed union of Bellevue Hospital Medical College and the New York University Medical School, under the joint title of the New York University-Bellevue Hospital Medical Colleges, would be a hopeful indication of a change for the better. Such a step might in time be advantageously followed also by consolidation of some of the too numerous hospitals and dispensaries.

The Preparation of Galenicals from Fluid Extracts.—In previous issues of THE POLYCLINIC, we have given the opinion of a number of physicians teaching medicine and materia medica, and of pharmacists teaching pharmacy, concerning the question of the dispensing of diluted fluid extracts upon prescrip-

tions calling for tinctures or for infusions. This week we are favored with opinions from dispensing pharmacists, whose intimate and practical knowledge of the subject from all standpoints, commercial and professional, cannot be questioned, and whose right to positive opinions must be conceded by all. It will be seen that this most experienced jury is unanimous in giving a negative answer to the question as propounded, thus fully supporting the original position taken by Mr. England and by THE POLYCLINIC. We shall, in a future issue, publish any replies that may reach us after this issue has gone to press, and comment at proper length upon the subject. At present, we shall call attention only to a few facts concerning our inquiry. In all, we addressed letters to 15 teachers of medicine, 10 teachers of materia medica, 5 teachers of pharmacy, 1 manufacturing pharmacist of scientific eminence (Dr. Squibb), and 13 dispensing pharmacists; in all to 43 experts. Answers were received from 6 teachers of medicine, 8 teachers of materia medica, 2 teachers of pharmacy, 1 manufacturing pharmacist (Dr. Squibb), and 8 dispensing pharmacists; in all, from 24 experts. With few exceptions, our correspondents express unqualified condemnation of the practice concerning which inquiry was made; a few, however, permitting it in specified emergencies; and two giving it a qualified approval. These two notable exceptions are Prof. H. A. Hare, of Philadelphia, and Prof. H. H. Rusby, of New York; of whom the latter states and the former intimates that, in the case of certain preparations, the practice of diluting fluid extracts purchased from manufacturing houses and dispensing these as tinctures, is permissible. Dr. Hare instances *nux vomica* and *digitalis*. He says, however, "if I were given my choice;" but as THE POLYCLINIC's query referred to instances in which the physician is not consulted, even Dr. Hare cannot, with strict accuracy, be counted in

the affirmative. Dr. Rusby, who makes no reservation as to "choice," gives no specific instance in which the practice is correct, stating that good pharmacists know, and physicians ought to know, the cases. Dr. Rusby may, therefore, be put down as answering our question affirmatively as to certain unspecified preparations.

On the other hand, from such authorities in pharmacy, therapeutics and practice, as Doctors Stillé, Bartholow, Wood, Remington, Squibb, Peabody, Abel, Osler, and Tyson, we have such expressions as "unhesitatingly No;" "emphatically No;" "clearly not;" "certainly not;" "never justifiable;" "Is it honest to pretend that one thing is another?" "The practice is most pernicious," and similarly strong and clear language.

The great weight of opinion is, therefore, against this form of substitution, because it introduces an additional and needless uncertainty into the physician's work; because it leads to carelessness and inefficiency in pharmaceutical work generally, and because—to cite again Dr. Peabody's very pertinent phrase—it is *not* honest to pretend that one thing is another.

S. S. C.

SUBSTITUTION OF FLUID EXTRACTS FOR TINCTURES AND INFUSIONS. ANSWERS TO "THE POLYCLINIC'S" QUERY.

Continued from p. 157, Vol. VI, No. 15.

PHARMACISTS' OPINIONS.

IN reply to the query, "Is a druggist justified in dispensing a diluted fluid extract upon a prescription calling for a tincture, or upon one calling for an infusion?" answers have been received as follow:

JACOB M. BAER, Ph.G., Philadelphia: "A druggist is *not* justified in diluting a fluid extract in making an official, national formulary, or recognized authority tincture."

FRANK E. MORGAN, Ph.G., Philadelphia:—"In reply to your question, will state that as the formulæ for the preparation of tinctures and infusions are given in the Pharmacopœia, which is authority, it of course follows that fluid extracts diluted should not be dispensed when the preparations mentioned are called for."

C. A. WEIDEMANN, Ph.G., M.D., Philadelphia: "No—except under certain conditions and limits. These conditions and limits I should consider to be only in *unofficial* tinctures or infusions, and in *emergencies* when time would not permit of preparing them by the official process."

W. L. CLIFFE, Ph.G., Philadelphia: "I have no hesitation in answering, most emphatically, *he is not*. At first sight the question seems to be one of simple arithmetic, but practically you can't make a satisfactory tincture or infusion by that method. In making galenicals you are not dealing with plain chemical solutions but with those containing complex bodies, each possessing chemical individuality, in combination, and this makes it necessary to treat each drug as a separate entity, taking into consideration the structure, constituents and *strength of product desired*."

F. W. E. STEDEM, Ph.G., Philadelphia: "In answer to your letter of 1st inst. requesting an opinion on diluted fluid extracts for tinctures and infusions, I have very decided views. It is *never right* to resort to the practice of diluting fluid extracts for the making either of tinctures or infusions, particularly infusions. If there was no other reason than that of the alcoholic strength of the menstruum it would still be bad enough. I believe that there is no comparison to be made between the regular official tinctures and infusions, and those made by diluting fluid extracts, and therefore there is no justification for using the latter method."

WALLACE PROCTOR, Ph.G., Philadelphia: "In answer to your query I would say that the use of the fluid extracts of the market to prepare tinctures is admissible *only under stress of circumstances*, except possibly in a few instances in which the menstruum in each case is identical. Even in these, economy, as a rule, would preclude their employment for the purpose. An infusion being essentially an aqueous preparation directly from the drug, I cannot conceive that the admixture of an alcoholic preparation with water can produce the same result as the watery extraction. The variation in the physical characteristics of the fluid extracts of different manufacture is so great, that though their labels state they are U. S. P. standard, it would render it impossible to produce results which would be identical, or even similar, one time with another."

GEORGE M. BERINGER, Ph.G., Camden, N. J.: "I must record my opinion in the negative. It has become customary for manufacturers to include on their labels for fluid extracts formulæ for preparing tinctures, infusions, decoctions and sirups therefrom, but such a custom has not received pharmacopœial sanction, nor, so far as I can learn, is it advocated by a single pharmacist of national reputation."

"The compilers of the U. S. Pharmacopœia recognize the fact that the various official remedies prepared directly from the same drug by the use of different menstrua will, in most cases, extract different principles in varying proportions, and the products will be dissimilar in therapeutic action. If the difference in action be only in degree and not in character, then the committee would be justified in excluding from

the Pharmacopeia all liquid preparations of vegetable drugs but the fluid extracts, and physicians would then have to specify in each prescription the amount and character of the diluent. The thoughtful physician carefully differentiates between the various preparations of a drug, and selects the remedy which will most likely give the desired result, and every competent pharmacist should recognize this intent and scrupulously carry out the instructions. He who would adopt the careless, slipshod methods suggested in the proposition, would merit the condemnation of both physician and patient. I do not believe that *very many pharmacists* are adopting such methods. A very important part of the duty of the pharmacist is to prepare his remedies and to fully satisfy himself that all materials dispensed are properly made and of official strength. Most pharmacists do not make fluid extracts except to a very limited extent, but all are able to prepare tinctures and infusions by the official method and of proper strength. A comparison of tinctures and infusions made by the official processes and those made from fluid extracts by dilution is sufficient to prove the superiority of the former."

ANDREW BLAIR, Ph.G., Philadelphia:—"A druggist is not justified under any circumstances in using a diluted fluid extract to make an infusion. (1) Because in a large majority of cases it is not prescribed when the medicine is needed in haste or when the patient would suffer by delay, thus enabling the druggist to supply himself with the drug, if he had none, in good condition. (2) Because the diluted fluid extract being partly aqueous and partly vinous is not similar to a purely aqueous preparation, as some of the active principles of the drug are taken up or rejected by water alone, which may be the intention of the physician in ordering an infusion.

"Is a druggist justified in using a diluted fluid extract when a tincture is prescribed?" I would answer, No. Yet there may be instances when he would be justified in making a tincture from a diluted extract. For instance—He receives a prescription for a tincture which he has not in stock, his location may be distant from any source where he can get a preparation that would be reliable and satisfactory to him to dispense. If circumstances permit he might inform himself as to the urgency of its being supplied at once, and if needed immediately it is a very important question for him to decide whether the delay occasioned by his sending for it would not be of more injury, perhaps risk of life, than for him in the first instance to make the tincture from a diluted fluid extract, and at once supply himself with the tincture in case it should need to be repeated."

News Items

THE COLLEGE OF PHYSICIANS AND SURGEONS, of Chicago, has recently become the Medical School of the University of Illinois.

THE TEXAS *Health Journal* has been merged into the *Texas Medical Practitioner*.

In the Clinics

Under the Editorial Charge of DR. OAKLEY W. HERMANCE.

DR. CANTRELL stated that the ordinary bed-bug was capable of causing much local distress. He had noted one case in which there had formed grave abscesses at the site of the bite.

DR. ESHNER demonstrated a case of *chlorosis* in a girl of 17, presenting almost cadaveric pallor, in whom while the blood-count was four millions and a half the hemoglobin-valuation was only 25 per cent. Rest in bed for a short time, with a full milk-diet, in conjunction with Blaud's pill of iron sulfate and potassium carbonate, was prescribed, the nourishment to be gradually increased and gentle exercise to be taken later.

IN cases of *lacerated wound of the corneal-scleral junction with prolapse of the iris*, Dr. de Schweinitz recommends the following procedures: (1) Thorough sterilization of the conjunctival cul-de-sac; (2) If the case is recent, replacement of the prolapsed iris with a probe, or, if this is not possible, its abscission in the same manner as when the operation of iridectomy is performed; (3) Careful coaptation of the wound edges, and when there is undue gaping, the insertion of delicate silk sutures through the conjunctiva, or even through the superficial edges of the sclera, with due caution that the underlying ciliary body is not imprisoned in the wound; (4) The instillation of atropin and the continuous application of iced compresses to prevent the development of traumatic iritis; (5) The internal administration of small doses of calomel, a sixth of a grain every two hours. A case of this character should be kept under observation until every sign of local inflammation has passed away, and with it the attending danger, namely, sympathetic inflammation in the opposite eye.

THE PHILADELPHIA POLYCLINIC

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APRIL 24, 1897

TESTS FOR VISUAL MALINGERING AND HYSTERICAL BLINDNESS.¹

BY EDWARD JACKSON, A.M., M.D.

Professor of Diseases of the Eye in the Philadelphia Polyclinic; Surgeon to Wills Eye Hospital.

WE have no test that distinguishes between impairment of vision due to hysteria and that simulated in malingering. It seems clear that hysteria is a true pathologic condition, as real as any pathologic condition that we are called upon to treat; but, because of its peculiar character and its independence of recognizable anatomic changes, it is impossible by any single test to certainly distinguish it from malingering.

There are some symptoms of hysteria, especially such as the alterations in the visual fields, which are of a character not likely to be simulated by the malingerer. But when it comes to symptoms that are likely to be feigned, our tests do not discriminate between the disease hysteria, and voluntary feigning. Hence the tests that I am about to refer to, generally reveal that the condition present is either hysterical or feigned, but other symptoms and the general aspect and surroundings of the case must be considered before determining which of these is the condition present. Tests of the field of vision may throw important light upon this question, as the hysterical field usually exhibits certain distinct characteristics, while feigned impairment of the visual fields is likely to follow closely one of the common forms of hemianopsia, or to promptly show the fraud by incongruous or impossible symptoms. Further than this I do not pur-

pose to refer to tests for the field of vision, but simply to speak of the tests for acuteness of vision at the center of the field; vision as commonly taken with test-letters.

In my experience, feigning most frequently takes the form of exaggeration of an actually existing visual defect; or of ascribing a defect previously existing to some particular cause or accident. It is quite possible that this latter may be done quite honestly, without the slightest intention to deceive, as defective vision in one eye may exist many years without being noticed.

To avoid falling into error by accepting as correct a statement that underestimates the acuteness of vision actually present is by no means easy. A large proportion of patients will stop reading and say they cannot see any more; yet with a little coaxing they can be induced to read one or two additional lines of smaller test-letters. Simple disinclination to make the effort to observe closely prevents them from revealing their true visual acuteness; and when to this is added the desire to make as much of a disability as possible, the obstacle may become insurmountable. However, tact and patience will do much.

One plan for overcoming the reluctance to reveal the full acuteness of vision, is to use a card having several lines of letters too small to be read at the distance at which it is placed.

¹ Read before the Philadelphia County Medical Society, March 24, 1897.

Then giving the claimant the impression that he is expected to see all of these, he will feel gratified to find that he actually cannot do this, and gratitude for this supposed demonstration of a desired impairment of vision may incline him to co-operate heartily in the test, and read the lines that should really be just visible to the normal eye at the given distance. Even the malingerer feels that the truth is the safest thing, if he thinks it will answer his purpose.

A popular impression that is valuable in this connection is that glasses help all kinds of defective sight; and that the exhibition of normal acuteness of vision with a glass will not impair the claim for impairment of vision from disease or injury. By very careful objective determination of the correcting lenses (and for this purpose skiascopy is the only practical method), and the placing of them before the eyes, if vision is at all improved by them, it is very often possible to secure the patient's co-operation to such an extent as to demonstrate his full visual power. This plan has, in my hands, proved very effective in the examination of claimants for pensions. These claimants believe they are entitled to pensions, or at least as much entitled to such gratuities as others who receive them; they have all lost their power of accommodation, and (emmetropia being very rare) they all, without correcting lenses, have imperfect vision. To attempt to ascertain the correcting lenses by the subjective method is simply a waste of time, and a source of vexation and irritation. But if the correcting lens is accurately determined objectively and placed before the eye, the claimant will, almost invariably, co-operate and reveal the full acuteness of vision he possesses. Over and over again I have thus been able to demonstrate vision better than with the Snellen Normal Standard, in those claiming pensions on the ground of visual impairment.

When *blindness of one eye* is feigned, well-

known tests readily reveal it. The best of these are the diplopia test and Harlan's test. The placing before the seeing eye of a prism too strong to be "overcome," by displacing the retinal image, causes binocular double vision, if the image is still seen in the normal position by the eye falsely claimed to be blind. This test may be rendered most effective by first holding a prism before the seeing eye in such a way that its edge shall come before the pupil, thus causing monocular diplopia by the formation in the one eye of two images one from rays passing through the prism, and the other from rays passing beside it. Or, one may take the double prism, and holding it with the line of junction in front of the pupil, get the same monocular diplopia. Having thus demonstrated to the claimant that he sees double with the seeing eye alone, we proceed to ask about the position of the images when the prism is held in different directions, and then slip the prism completely in front of the pupil, so that in one eye rays all unite to form a single image, and diplopia remaining becomes positive evidence of binocular vision.

The other standard test, proposed by our fellow-member, Dr. George C. Harlan, consists in placing before the alleged blind eye a plane glass or its correcting lens (the latter often perceptibly improving its vision), and before the "seeing" eye a strong spherical lens, either convex or concave, which will entirely prevent clear vision at the distance of the test-letters. The claimant is told to keep both eyes open and read what he can through the glasses; and commonly he does so, supposing that he does it with his "seeing" eye which has been excluded. This test is particularly valuable because of its simplicity, which allows of its ready explanation before a jury, and because the claimant can himself be convinced that his fraud is fully detected, by asking him to read the same letters after the hand has covered what

he claimed to be his blind eye. More than one suit for damages has thus been brought to an abrupt termination.

Another test for feigned monocular blindness, but of less practical value, may be arranged with cylindric lenses, obliquely placed before the eyes. Viewing through them, a plain rectangular surface appears distorted with either monocular or binocular vision, but the distortion is quite different in the one case from that which occurs in the other, and it is sufficiently characteristic to reveal with certainty whether monocular or binocular vision is implied. This test is more appropriate for cases in which pretended impairment of vision is comparatively slight.

Feigned blindness of both eyes has heretofore been regarded as more difficult to detect than feigned monocular blindness. Thus Dr. de Schweinitz ("Diseases of the Eye," Second Edition, p. 488) states: "If a malingerer claims to be blind in both eyes, he can be detected only by placing a careful watch over him." Noyes ("Diseases of the Eye," Second Edition, p. 720) says: "It is difficult to unmask the pretense of total blindness. One must have opportunity to watch the person without his knowledge." Fuchs ("Diseases of the Eye," American Edition, p. 29) suggests observation of the pupillary reflex: "Although there are rare cases in which in the presence of actual blindness the pupillary reflex for light is still retained."¹ Fuchs also mentions the Schmidt-Rimpler method of telling the claimant to look at his own hand, which the blind man does without hesitation, while "a malingerer will perhaps purposely look in the wrong direction." Occasionally the malingerer can be startled into betrayal of the fraud. I once heard Dr. William Osler tell of a young woman who made the round of the London hospitals claiming complete blindness with-

out apparent cause. Being led into the Moorfield's Hospital, an assistant suddenly held a live frog before her eyes, and she ran out screaming. Not all ophthalmic hospitals have frog-tanks.

Priestly Smith has recently given us a most perfect method of recognizing feigned blindness, although he has done it in such a modest, matter-of-course way that it has not yet attracted the attention it deserves. In the Ingleby Lectures on "The Mechanism of Binocular Vision, and the Causes of Strabismus,"² To illustrate the subject of diplopia in connection with strabismus in children, he narrates the following case:

"A few months ago a prisoner awaiting trial for burglary with violence, awoke one morning blind in both eyes, so he said. The prison surgeon had no doubt that he was shamming, but wanted positive evidence one way or the other, and we examined him together. The man declared himself to be quite dark in both eyes, and acted the part of a blind man fairly well, overdoing it a little. The pupils were already under atropin, and could therefore give no evidence as to the light reflex. A lighted candle was placed before him in a dark room. He was not required to "look" at the candle, being nominally blind, but the candle was placed about where he appeared to be looking. A prism was then placed before one eye, its base inwards; instantly the eye moved outwards. The prism was removed, and the eye moved inwards. The man was told that his blindness would certainly disappear as quickly as it came, and he probably understood that the fraud would get him into more trouble if persevered in. His sight was soon restored. Now if this man could have carried his blindness into the dock, a merciful judge, and jury would not improbably have felt that a higher tribunal had already visited him with a heavy punishment, or at least

¹ Harlan has shown that the light reflex is often retained in blind eyes. *Trans. Amer. Ophthalmol. Society*, 1896.

² *British Medical Journal*, June 20, 1896.

that he was incapacitated for further crime, and would have dealt with him very leniently. As a matter of fact he was a particularly daring and dangerous criminal, and had during a previous imprisonment attempted the life of the prison surgeon. He received a long sentence."

This method is so perfectly simple and reasonable that it seems remarkable that it should not have been thought of before. Doubtless, it would have been sooner brought into use if the feigning of binocular blindness were not comparatively rare. I have tried it a number of times, not on any case of feigned binocular blindness, as none has been encountered, but upon eyes actually blind; and upon those who, understanding the test, attempted to defeat it by not turning the eye before which the prism was placed. It is a test that may be relied on to reveal feigning of binocular blindness in all cases, except those in which along with blindness there is pretended an inability to keep the eyes open, or constant movement of the eyes—nystagmus.

The best prism is generally one of 6° or 8°, held with its base towards the temple. Most persons involuntarily "overcome" such a prism by turning the eye correspondingly toward the nose, to escape diplopia, even in spite of an effort not to do so. It would be possible, of course, for a special case of heterophoria not to show the characteristic

movement with this particular prism, but a trial of other prisms, or of the same prism with its base turned in the opposite direction, should reveal this characteristic movement. When the attempt is made to prevent such movement, to ignore the double images, the movement of deviation may be so gradual or so delayed as to escape detection, when the prism is placed before the eye; but on removal of the prism the "recovery" is prompt and characteristic. The same test may be applied for the detection of feigned monocular blindness. The prism held before the seeing eye causes the characteristic movement, but before a blind eye it causes none. It is a test that reveals not merely some light-perception, but the presence of a comparatively definite and clear perception of objects.

When the malingerer feigns not only binocular blindness, but also nystagmus and an inability to open the eyes, he may be placed under the influence of a general anesthetic and tested and watched during the period of recovery, when he will most certainly fail to sustain the fraud.

By the methods thus briefly reviewed, I believe it to be possible in all cases to detect feigned blindness; but the distinction between malingering and hysterical blindness has to be based on other evidence, and cannot be determined simply from the results of these tests.

A CASE OF APOPLEXY DUE TO AN APPARENTLY SLIGHT INJURY.

BY CHARLES HERWIRSCH, Ph.M., M.D.

Clinical Assistant in Medicine in the Philadelphia Polyclinic; Physician to the Outpatient Dispensary at the Rush Hospital for Consumptives.

ON February 8, 1897, I was called to see Miss L. W., aged 42 years, well built, fleshy, weight about 150 pounds, who, about two hours previous to my seeing her, had carried a washtub down cellar, and the same slipping out of her hand, made a quick, forcible motion forward to catch it. She felt a severe pain

in the neck and head, but put her tub in its place, and coming upstairs attended to some business matter. The pain in the neck and head increased quickly and she had to go to bed. I was then sent for. I found the patient in bed, shrieking with pain. Her pulse was regular, rate 68, arteries soft; the

temperature was normal. The heart-sounds were normal, the lungs normal. She was able to move every limb but could not raise the head or turn the neck on account of pain. No painful spots were found over the spine. Hot applications to the neck, an ice bag to the head, and 15 grains sodium salicylate with 3 minims of tincture of digitalis every two hours were ordered. The next morning the pain, both in the neck and head, was much easier, and she was able to move these parts. The bowels were moved by calomel followed by magnesium sulfate. The appetite was poor. For the next few days the headache remained severe, and was not relieved by bromids, phenazone, phenacetin, etc.

On the fourth day after the accident the menses appeared, this being the regular time. On the sixth day the patient was up and able to go into the next room, where I found her reclining on a lounge. She could move the neck at will without pain, only complaining of the constant and persistent headache. As long as she was under the influence of bromids and phenazone the head seemed easier, but as soon as the dose was diminished or the time lengthened the pain again became worse. The menses ceased on the eighth day after the accident. On the ninth day the patient complained of dizziness and vertigo, and on the tenth day after the accident I was summoned in haste about 10 A.M., and found the patient paralyzed on the whole left side. The temperature in the left axilla was 98° F., in the right 96.8° F. The left pupil did not react to light, the right did. The speech was heavy. The patient could easily be aroused, had the use of the right side and would lift the left arm with the other hand when told to move same. Her memory did not seem to be impaired for the first two days; her sister, to test it, borrowed a dollar from her and for two days the patient remembered having loaned the money. The patient would take nourishment when given to her; the bowels were kept open with epsom salts. Fluid extract of ergot, digitalis and bromids were given, and on the second day potassium iodid in ten-drop doses of the saturated solution was added. On the fourth day the patient became semi-unconscious, began to void urine involuntarily and would not take food. The

heart-sounds became weaker, both eyes failed to react to light. And in spite of stimulants, strychnin, digitalis, etc., and increased doses of the iodid, the patient became comatose, the bowels did not move, she could not be aroused to take nourishment, and on the 26th of February died in coma.

Autopsy was refused.

The case is of interest on account of the apparently slight injury which must have caused the rupture of a small bloodvessel or aneurism in the brain. The long delay of ten days, before hemiplegia appeared, I can only explain by the supposition that the bloodvessel must have been very small and the rupture slight; but blood persistently oozed out and formed a clot with pressure on the brain. At the age of 42 years, cerebral hemorrhages are not very frequent, unless the bloodvessels are degenerate, or syphilis, alcoholism or severe muscular exertion or hereditary tendency predisposes the patient to an attack. It is also more prevalent in men than in women. The family history is negative, the father died of old age about 70, and the mother at the age of 82, from heat exhaustion during the hot spell of last summer.

The patient herself was a stout, heavy-set woman with a short neck, very active, doing the housework in her family of three sisters, a brother and a mother. In childhood she suffered from chorea, and in adult life was very much troubled with headaches. I have known her for five years, and she often sought relief for this headache. The fifth in a family of eight children, she was not as bright mentally as her brothers and sisters. Her bloodvessels, so far as accessible to examination, were in good condition and no heart lesion was present. Her other functions were normal. Whether there was an aneurism present which caused her headaches, and later her death, only an autopsy could have revealed.

Current Literature

The Diagnosis of Pregnancy by the Microscopic Appearance of the Urinary Phosphates.—W. E. Parks (*American Gynecological and Obstetrical Journal*, September, 1896). The urine is prepared as follows: About one and a quarter inch of urine is placed in a small test tube and to it is added one-third as much of "Tyson's magnesium fluid." This throws down the triple phosphates in fifteen or twenty minutes, and this is examined microscopically. "Tyson's fluid" is composed of one part each of ammonium chlorid, aqua ammonia, and magnesium sulfate, and eight parts of distilled water. When conception occurs the triple phosphates in the urine lose their feathery appearance, the change beginning at the tip and progressing toward the base. One side only may be affected, or both, leaving only the shaft and perhaps a few fragments adhering. The shaft assumes a beaded or jointed appearance. These changes commence within twenty days after conception, are most marked in the early and almost absent in the latter months. E. P. D.

Dyspepsia of the New-Born.—Albert Robin (*Bulletin Générale de Thérapeutique*, July 15, 1896). Overfeeding is the most frequent cause of all gastric troubles. The stomach of an infant is very small and should be given only sufficient for its immediate digestion. The child should be nursed at two hour intervals, and in small amounts. Too early weaning and the substitution of solid for liquid food often causes indigestion. The pancreas does not secrete its special ferment until the fourth month; the salivary glands begin to furnish diastase about the ninth month, and their full power is attained only at the eleventh month. Starchy substances, therefore, cannot be digested at all before the fourth month, and nitrogenous matter before the tenth month. Vomiting is the characteristic symptom of infantile dyspepsia, but should be carefully distinguished from a mere regurgitation, which latter occurs immediately after nursing, the former about an hour later consists of acid-smelling clots. E. P. D.

Atropin in Diphtheria.—Basing himself upon an experience of 350 cases, Elsaesser (*Therapeut. Monatshefte*, 1896, vol. 10, p.

471,) recommends the use of the following mixture in diphtheria:

Atropin sulfate	3 milligrams.
Cocain hydrochlorate	5 centigrams.
Bitter almond water	20 c.c.

One drop for each year of the child's age is given every hour. In adults 10 to 15 drops are given every hour. In addition to this treatment, gargling with potassium chlorate or turpentine is advised, and alcohol is used freely.

Progressive Multiple Ossifying Myositis.—As the result of a study of thirty-eight cases of so-called progressive multiple ossifying myositis, collected from the literature and including one of his own, PINCUS (*Deutsche Zeitschrift für Chirurgie*, B. xlv, H. 1, 2, p. 178), has arrived at the conclusion that this disorder is not a disease *sui generis*. Its neoplastic character is beyond doubt. The lesion is to be classed with multiple osteomas and exostoses. The morbid process originates in the periosteum, and the parenchyma of the muscles is lost secondarily through simple atrophy. The basis of the disorder resides in a congenital—not an hereditary—constitutional anomaly, which is to be defined as a vulnerability (exaggerated productivity) of the periosteum and the connective-tissue system of the locomotor apparatus. The predisposition is congenital and not acquired, as indicated by association with rare symmetric malformations, which (*e. g.*, microdactylia) do not enter into the formation of the anatomic picture of the affection, and are to be viewed as teratologic anomalies, and not as deformities resulting from amniotic adhesions. The male sex and, probably, also the strong boned, Anglo-Saxon Germanic races are predisposed to the disorder. For its development, some external excitant is necessary. Among the etiologic influences are especially trauma, and in less degree rheumatism. Syphilis, rachitis and myopathies, or trophoneuroses, are to be excluded. Cases appearing to arise spontaneously in early life, or immediately after birth, are of traumatic origin, and are to be attributed to injuries received in the copress of birth. A. A. E.

Write to Dr. Stern, Secretary, for a copy of the new announcement of The Philadelphia Polyclinic.

THE PHILADELPHIA POLYCLINIC

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PHILADELPHIA, APRIL 24, 1897

THE COMING MEETINGS IN PHILADELPHIA.

THE last week in May and the first two weeks in June will bring to Philadelphia for the meetings of the American Medical Association, the American Academy of Medicine, the Association of American Medical Colleges, the American Medical Publishers' Association, the American Medical Editors' Association, and other bodies more or less closely related to the American Medical Association, a large and representative attendance of physicians of the United States. In order to make their stay as agreeable and profitable to themselves as possible, not only have arrangements been made to extend to them official and private hospitalities on a large scale, but medical Philadelphia, its hospitals, colleges dispensaries, lecture-rooms and laboratories will be thrown freely open. Special announcements will be issued, showing when and where all and each of the clinical and laboratory teachers, hospital physicians and surgeons of the city will be at work during the week preceding and the week following the meeting of the American Medical Association; and all physicians visiting Philadelphia at the time will be invited to be present at the operations, demonstrations, and clinical lectures

or ward visits of this great body of teachers. Some time ago, THE POLYCLINIC called attention to the fact that the facilities of Philadelphia for medical study were but poorly advertised and little understood by any except those who had had the opportunity of using them. It is to be hoped that during the weeks referred to, a better appreciation of Philadelphia as a medical center will be carried away by our thousands of visitors; and that without unpleasant rivalry the various teaching institutions, hospitals, and individual operators and clinicians, will generously emulate with each other in the endeavor to make the time as valuable to the visitors as possible. At the Polyclinic, in addition to the special lectures that will be announced in the regular course, all the dispensaries will be thrown open to visiting members of the American Medical Association and its sister societies, and special demonstrations will be given in the Roentgen Ray laboratory.

The program arranged for the scientific work of the American Medical Association promises excellent results. Special exercises in celebration of the fiftieth anniversary of the Association have also been provided for and will probably afford a notable attraction to the older members of the Association. Altogether the convention and its attendant exercises will be a notable event in the history of American medicine.

Editorial Note

Further Opinions Concerning Fluid Extracts, etc.—This week we print three additional answers from teachers of therapeutics and materia medica to our query concerning the substitution of diluted fluid extracts for tinctures and infusions, and it will be seen that our correspondents are entirely in accord with the others whose opinions have been previously published.

**SUBSTITUTION OF FLUID EXTRACTS FOR
TINCTURES AND INFUSIONS. ANSWERS
TO "THE POLYCLINIC'S" QUERY.**

Continued from p. 168, Vol. vi, No. 16.

PHARMACISTS' OPINIONS.

In reply to the query, "Is a druggist justified in dispensing a diluted fluid extract upon a prescription calling for a tincture, or upon one calling for an infusion?" answers have been received as follow:

PROF. J. P. CROZER GRIFFITH, M.D., Philadelphia: "I do not think the druggist has any right to make a preparation in a way other than the pharmacopeia calls for, as to do so is a deception of the physician. This is reason enough, apart from the fact that the effect of the remedy is found to be different in certain cases of preparation from a fluid extract instead of from the drug itself."

PROF. I. E. ATKINSON, M.D., Baltimore: "While I have no doubt that in many cases a diluted fluid extract may fulfil all the purposes of a tincture or an infusion, I think the door to great abuse is opened, when the druggist takes upon himself to depart from the prescribed rules of the pharmacopeia in the preparation of any official agent. Therefore, I would say that a druggist is *not* justified in dispensing a diluted fluid extract upon a prescription calling for a tincture, or upon one calling for an infusion."

PROF. THOS. J. MAYS, M.D., Philadelphia: "No; but I trust that this valuable discussion which has been inaugurated by you, will bring out the fact strongly that infusions, at least of some drugs, are not what they are generally believed to be, inasmuch as they do not represent the full pharmacologic value of the latter. Take digitalis, for example, of which an infusion is made more frequently, perhaps, than of any other drug. According to Schmiedeberg, digitalis contains at least four active principles, viz., digitoxin (chief constituent of Nativelle's digitaline), digitalin (Homolle's digitaline), digitaléin, and digitonin. Digitoxin and digitalin, the two most active principles, are *not*, while digitaléin and digitonin are soluble in water. Then, too, on account of the greater solubility of digitonin, an infusion contains a larger proportion of this principle than of digitaléin, yet the former acts like saponin, and hinders rather than enhances the action of digitalin. On the other hand, the tincture and the liquid extract, on account of differences of solubility in alcohol, contain a larger proportion of digitalin and of digitaléin, than of digitonin.

I am well aware of the current belief that the tincture and liquid extract represent principally those properties of digitalis which possess a cardiac action, and that the infusion acts chiefly as a diuretic, and that, therefore, these two kinds of preparations should be administered for different clinical reasons; but, so far as I know, the diuretic action of digitalis, apart from its influence on the heart, has not yet been established on a scientific basis."

In the Clinics

Under the Editorial Charge of DR. OAKLEY W. HERMANCE.

DR. S. SOLIS-COHEN exhibited to the class a case of *exophthalmic goiter*, in which great improvement had followed the administration of extract of the *suprarenal body*. He stated that thus far the medicines, from which he had observed the greatest benefit in the treatment of this affection, were hyoscin hydrobromate, picrotoxin, ergot, thymus extract, and adrenal extract, each of which had its special place in the management of an individual case.

* *

In a case of *chronic bronchitis* with *pulmonary emphysema* and *dilatation of the heart*, Dr. Eshner prescribed strychnin sulfate gr. $\frac{1}{30}$ t. d., together with

Sodium nitrite	1 dram.
Sodium iodid	2 drams.
Sirup of tolu	1 fluidounce.
Water	2 fluidounces.
	Mix.

DOSE.—A teaspoonful thrice daily.

* *

DR. H. B. CARPENTER strongly advises *against the use of salol in acute rheumatism*, remembering that it contains about 36 per cent. of carbolic acid, and in order to produce the physiologic effect of salicylic acid one runs the danger of carbolic-acid poisoning. In a case recently in which salol was given in conjunction with phenacetin ($2\frac{1}{2}$ grains of each) not only was the amount of urine passed reduced, but the urine became bloody.

* *

In cases of *delayed labor* due to failure of expulsive efforts on the part of the mother, Dr. Davis recommended maneuvers of *expression*. These consist in making manual pressure over the fundus of the uterus in such a way as to assist in the descent of the child through the parturient canal. In posterior occipital presentations force of gravity may be utilized to assist in rotation. This

can be made use of by placing the patient on the side toward which the occiput tends to rotate. In other cases in which the pelvis is a trifle narrowed in its antero-posterior diameter, or the head is lodged upon the pubic bone, the Walcher position may be used with advantage.

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In cases of *interstitial keratitis*, in addition to the usual local treatment with atropin, and constitutional remedies—mercury, iron, cod-liver oil, arsenic—according to the indications, Dr. de Schweinitz insists upon the value of the same measures which are used with such advantage in the treatment of patients with neurasthenia and depressed nutrition, namely, massage, forced feeding, sponge baths and gentle faradization. Cases of interstitial keratitis always improve most rapidly when taken from the temptation of indulgence in improper food which is apt to exist in their homes, and when they are placed under hospital restrictions and receive the advantage of trained nursing.

Correspondence

THE A. M. A. AND DISPENSARY ABUSES.

To the Editor of the Philadelphia Polyclinic:

No doubt the coming session of the American Medical Association will be the largest and most enthusiastic medical meeting in our country for many years. This, therefore, it seems to me would be a most opportune time to have the present dispensary abuse and allied evils thoroughly discussed with the view of arriving at some conclusion, as to the best means by which the profession may protect its interests and at the same time overcome the rapidly growing tendency to pauperize the opulent public. Various commercial or lay organizations, as you are well aware, are now undertaking to furnish medical attendance both at the homes of patients and in specially established hospitals in case of illness, and to attend to the burial

in case of death, on the insurance plan at the rate of fifty cents per month. The "doctors" whose services such organizations can command are, as we well know, in most instances men of inferior capabilities, who have proved themselves unable to practise their chosen profession in a legitimate way upon their individual merits. This evil, it is plain to see, not only concerns the profession but is of the greatest importance to the public at large. In its far-reaching possibilities for inefficient treatment and charlatanism this matter greatly exceeds the errors that the State Medical Examining Boards were recently formed to correct. In addition to the foregoing must be seriously considered the deplorable effect, morally speaking, that such a course of pauperizing must have upon the public itself. It, therefore, is rapidly becoming a question for stringent municipal legislation as well as for professional regulation.

Inasmuch as the only solution to this problem is the united and harmonious action of the medical profession, such energetic steps as would bring this most desirable end about should be taken at this time, which, as I have suggested, is essentially opportune. The recommendations recently adopted by the Medical Association of the District of Columbia (see the *Medical and Surgical Reporter*, April 3, 1897) are especially to be commended as a decided step in the right direction, and if heartily endorsed by such a powerful organization as the American Medical Association, at such a representative gathering as will be here in June, it will not be long until the State and County organizations throughout the country will adopt similar resolutions, and the first and long step be taken for crushing one of the really great evils of the day.

Yours respectfully,

W. A. NEWMAN DORLAND.

Philadelphia, April 15, 1897.

New Publications

THE PRACTICE OF MEDICINE. By Horatio C. Wood, A.M., M.D., LL.D. (Yale), and Reginald Fitz, A.M., M.D. 8vo, pp. 1088. Philadelphia: J. B. Lippincott Company. 1897.

One would naturally expect from the reputation of the authors of this book, as well as from the collaboration of a therapist of eminence, with a pathologist of no less distinction, a Practice that should be a valuable addition to medical literature, and the expectation is not disappointed. According to the preface, while each author has written certain determinate portions of the book, there have been such careful joint consideration and discussion of the various subjects, that there is a common responsibility, except in the very few places where final difference of opinion is indicated in the text, either over initials or by the use of the pronoun "I" instead of "we."

The section on nervous diseases, the articles on diseases of the muscles and on the various infectious diseases, except diphtheria, dysentery, tuberculosis, leprosy and syphilis, the chapter on acute and chronic poisoning, and all the therapeutics of the book have been written by H. C. Wood. The remainder of the volume, namely, the articles on the infectious diseases above specified, the chapter on diseases of the blood, and of the ductless glands, the chapter on parasites, and the sections on diseases of the circulatory, respiratory, digestive and urinary systems, except the therapeutics, are from the pen of R. H. Fitz.

We cannot, in the limited space at our disposal, undertake an analytic review of the volume, or point out those portions in which we should take exception to the recommendations of the authors, but no notice, however brief, should omit recognition of the lucid, logical and consecutive style of the authors, or the philosophic grasp of principles which dominates the work. A few citations of therapeutic teaching on prominent topics may illustrate its general trend.

In the treatment of pulmonary (and other forms of) tuberculosis, we are glad to note that the authors place first among the desiderata "to increase the resistive power of the tissues," while we regret the entirely inade-

quate estimate of pneumatic treatment and the very imperfect exhibition of its methods. The section on appendicitis naturally attracts attention in a book of which Dr. Fitz shares the authorship. We find here that the views of the authors have been so irreconcilable in the matter of treatment, as to necessitate the insertion of two articles setting forth their respective individual views. The greatest difference of opinion is with relation to the question of purgatives. Wood advises salines and calomel in certain cases, while Fitz states that all cathartic medicines are to be avoided until convalescence is established. In the treatment of pneumonia, the authors recognize the usefulness of venesection in properly selected cases, preferring, however, the use of *veratrum viride* when this is likely to prove equally efficient. They believe that the use of poultices and other hot applications is often injurious, and that cold, wet compresses, or even the ice bag may often be applied over the chest with advantage. In the use of nitroglycerin and amyl nitrite, much caution is advised, and they do not seem to view the practice with much favor. Digitalis is recommended in the advanced stage of a severe pneumonia. The fact, however, is insisted upon, that individualization is necessary, on account of the fact that, therapeutically, the disease is not a unit, whatever it may be pathologically, and that statistics dealing with the mortality of different modes of treatment, in which cases of different character are lumped together indiscriminately, are, therefore, without value.

The Practice of Wood and Fitz is a volume to be consulted by the practising physician, rather than a text-book to be studied by the student; and as such, we presume, was the intention of the authors, they are to be congratulated upon having produced a helpful treatise.

S. S. C.

BOOKS RECEIVED.

ANNUAL REPORT of the Supervising Surgeon-General of the Marine Hospital Service of the United States. For the Fiscal Year 1896. 8vo, pp. 1079. Washington: 1896.

SYRINGOMYELIA. An Essay to which was awarded the Alvarenga Prize of the College of Physicians of Philadelphia for the year 1895. By Guy Hinsdale, A.M., M.D. 8vo, pp. 74. Philadelphia: P. Blakiston, Son & Co. 1897.

THE PHILADELPHIA POLYCLINIC

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THE NOSE AND THROAT IN SCARLET FEVER.—REPORT OF A CASE.

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IN all of the exanthemata as well as in diphtheria, influenza, pertussis and, to some extent, in typhoid fever, involvement of the upper respiratory passages is a constant factor. The relation of the nose and throat to the general systemic condition may be considered from several points of view :

(1) As points of entrance of the contagion. That the contagion of scarlet fever usually enters the system by inhalation is beyond question. Doubtless the branny scales find lodgment in the nose and throat and carry with them the micro-organism peculiar to the disease. Absorption and systemic infection are favored by the abundant lymphatics and rich blood supply. The tonsils have been described as a physiologic wound and present an ideal soil for the lodgment of germs, but it is important to remember that they are guarded by abundant leucocytes and that their connection with the general lymphatic system is more restricted than is that of some other parts of the pharynx. Systemic infection is, therefore, apt to be less severe when the tonsils alone are affected.

(2) As a means of diagnosis. Fever and nausea may precede many forms of illness, but when to these is added sore throat, with or without membrane, the physician is justified in isolating the case in anticipation of an eruption. The early appearance of membrane is an additional means of verification. In a case seen recently by the writer, mem-

brane appeared upon the tonsils, pillars and soft palate fully twenty-four hours before the skin was affected. It is more usual, however, to find membrane during the eruptive period. Unlike an ordinary pharyngitis or tonsillitis, the initial sore throat of scarlet fever does not yield to treatment, but persists and often becomes progressively worse. The dusky color and the edematous puffing of the tissues that is often present, are peculiar and striking. From diphtheria, diagnosis may be made by bacteriologic examination and by the early appearance of the rash. The character of the membrane itself is often not diagnostic. It is, however, usually detachable without difficulty and does not recur so soon and so persistently as in diphtheria. A brown, acrid and fetid discharge is suggestive of the latter disorder. The possibility of a mixed infection must always be considered and the re-appearance of membrane during convalescence is strongly indicative of such a possibility. From follicular tonsillitis, the diagnosis is sometimes difficult at first. The high fever of lacunar amygdalitis is sometimes accompanied by an efflorescence, especially in fair-skinned patients, which obscures diagnosis. The vaso-motor phenomena and marbling of the skin are, however, pathognomonic of the graver condition. The results of local treatment are also an indication of the nature of the trouble. In this form of amygdalitis evacuation of the crypts and the application

into their depths of a strong solution of silver nitrate will usually cause a marked amelioration of the symptoms which will not result in scarlatina.

(3) As an index of the severity of the contagion and as a factor in prognosis. That there is a constant relation between the severity of the angina and that of the disease is undoubted. When the membrane is profuse and widespread and appears early a severe attack may be anticipated. A reappearance of membrane during convalescence is significant of a mixed infection. When the neck is swollen and the cervical glands are large and painful and, perhaps, suppurating, a serious condition of the throat will be found underlying the condition. In that form of the affection known as anginose the prognosis is decidedly unfavorable.

(4) As an indication for local treatment. The use of a spray of diluted hydrogen dioxide is a routine matter. Hot, wet cloths to the throat and steam inhalations sometimes give relief. Tincture of ferric chlorid and chloral influence favorably the course of the angina. The membrane may be swabbed away with advantage and can usually be detached without difficulty. The nose and naso-pharynx should be kept clear with a detergent spray. The importance of local treatment of the nose and throat cannot be overestimated. A bad and neglected throat is a sure precursor of a brawny, swollen neck and painful cervical glands which will not yield to treatment as long as the primary seat of infection is overlooked.

(5) As the dominant symptom in that form of scarlatina which is known as anginose. The writer has never seen a case of this extreme severity and cannot do better than to quote the words of Dr. Whittaker in *Pepper's Text-Book of Medicine*: "The glands, the lymph vessels, the interglandular tissue, are swollen and amalgamated into a mass of board-like induration which fixes the head to

the body, compresses the great vessels, and results not infrequently in extensive suppurations. Phlegmonous processes, gangrenous destructions, occur frequently in connection with diphtheritic or pseudo-diphtheritic deposits in the throat. The process may compress the trachea or suffocate by edema of the glottis. Pus burrows down into the chest, to at times erode nerves or other structures. The inflammation of the throat may extend to and involve the larynx and bronchial tubes. Pneumonia, both bronchial and croupous, occurs not infrequently in grave cases. Hemorrhage of the lungs, gangrene, more especially edema, hypostases, take life directly or indirectly by overstrain of the heart."

The following typical case of scarlatina may serve to illustrate some of the foregoing observations:

The patient, a healthy lad of 17, was subject to frequent attacks of tonsillitis, often of the follicular form. On New Year's Day he complained of pain in the throat and the anterior pillars of the fauces were slightly injected. On January 2d the throat was quite sore. The uvula, the pillars and the posterior pharyngeal wall were dusky red in color and swollen. The parenchyma of the tonsils was not affected to a proportionate degree and there was no membrane anywhere. The tonsillar crypts were empty and gaping. The nares and naso-pharynx were obstructed. A purgative was prescribed. The throat and nose were cleansed with a detergent spray and the throat was painted with glycerite of tannic acid. Towards evening the bowels moved copiously, accompanied by vomiting, and the temperature, which in the morning was 101° , rose to $102\frac{1}{2}^{\circ}$. A gargle containing *rhhus glabra* and potassium chlorate was ordered, and also a powder containing phenacetin and salophen.

On Sunday, January 3d, the throat was still very sore and there was great dryness due to nasal obstruction and consequent mouth breathing. The patient remained in bed. Towards evening the temperature, which in the morning had dropped to 101° rose to 104° , and a red blush appeared upon

the neck and upper part of the chest. On the morning of January 4th, the condition of the throat was worse. The affected tissues were edematous and purple and the throat dry and painful. The backward dropping of mucus from the naso-pharynx caused frequent gagging and there was occasional vomiting for which bismuth powders were prescribed. A spray of dilute hydrogen dioxid was given for the throat and the frequent use of the detergent spray for the nose was enjoined. The red blush upon the neck and chest was more marked and was evidently spreading, and the marbled appearance of the skin was characteristic.

Dr. Pepper was summoned in consultation and to his wisdom and skill is doubtless due much of the favorable result obtained. The family were excluded from the sick-room and a trained nurse placed in charge. The skin was cleansed with a carbolized wash and greased twice daily, and the sprays for nose and throat were diligently used. Tincture of ferric chlorid and chloral were given every three hours and the bismuth powders were continued. The vomiting persisted at intervals. The temperature was $102\frac{1}{2}$.

On January 5th the rash was very bright in color and covered the whole body. On account of the severe vomiting the tincture ferri chlorid was stopped and chloral was given alone p. r. n. Now for the first time membrane appeared on the tonsils and was wiped away by a swab wet with hydrogen dioxid.

On January 6th membrane continued to be formed and was removed by the swab. There was less vomiting.

On January 7th, adenitis developed in the post-cervical glands, which were large, tender and painful. The patient complained bitterly of this symptom, and was unable to sleep for twenty-four hours. The glands were rubbed with ichthyol and petrolatum with most happy results. Vomiting now ceased, and the bismuth powders were discontinued. The secretion in the nose and naso-pharynx was lessened, and the obstruction began to disappear with amelioration of the throat-dryness from mouth breathing. The patient now complained of pain, in the right wrist, and inability to use the hand. He feared that he must have broken the wrist. The eyes also began to smart and were slightly injected.

On January 8th, ophthalmoscopic examination showed the eye-ground to be healthy. The iris was of normal color and freely movable. There was no deep pain, but much smarting. The cornea was not involved. The conjunctivæ were brightly injected and vision was blurred. There was intense photophobia and free lachrymation. The room was darkened, and drops containing boric acid and cocain were prescribed with satisfactory results. The adenitis was much better, but the wrist was still painful, and a bandage was applied.

On January 9th, there was further marked improvement in the condition, both of the eyes and of the cervical glands. Both wrists now showed distinct arthritis, and the heart was murmurish. A pill was prescribed, containing (mild) mercurous chlorid, sodium salicylate, and sodium bicarbonate.

From this time, all symptoms began to subside, and progress was uninterrupted. Desquamation progressed rapidly, and on February 10th the patient was bathed and disinfected, and removed from the sick-room, which was then disinfected and fumigated.

During the course of the disease, there was no symptom of renal incompetence at any time. The total quantity of urine passed during the twenty-four hours varied from 30 to 50 ounces, and the specific gravity from 10.15 to 10.32. There was no reaction for albumin at any time. Urates were abundant. Desquamation was active in the kidney from January 11th to February 3d, during most of which time there was abundant epithelium in the urine. A few hyalin and epithelial casts were found at the height of this period. The bowels were constipated after the third day, and moved only after an enema. Nausea and vomiting were troublesome symptoms for a few days, but subsided under the use of bismuth, and when the dropping of secretion from the naso-pharynx was controlled. The ear was not involved at any time. Mild delirium was present at night for a short time during the height of the fever. The appetite was good during the whole course of the disease. The tongue was coated for a time with red edges and tip, but the papillæ were not especially prominent. The temperature, which began to rise before any distinctive symptoms declared

themselves, reached its maximum of 104.4°F . on the second day of the eruption and gradually subsided, reaching normal on January 14th. The catarrhal symptoms were very troublesome during the prodromal period and for the first day or two of the eruptive period. The membrane was present only during the eruptive period, was confined to the tonsils and was grayish-white in color. It was readily removed by the swab. There was no indication that the accessory sinuses were involved. The adenitis kept pace with the condition of the throat and was an index of the severity of the angina and of the absorp-

tion of the toxins elaborated. The patient, when released from the sick room, was thin and pale but cheerful and made a rapid and full recovery without sequelæ.

In the second week the trained nurse, who had previously attended many such cases with impunity, contracted the disease and was relieved. She had a severe attack but made a good recovery. In many cases when attendants escape the disease, they nevertheless complain of a sore throat which, there is reason to believe, is not always accidental. It is doubtless, in some cases, an abortive attack of the disease.

CHLORALOSE; WITH A REPORT OF TWO CASES OF UNTOWARD EFFECTS.

By S. LEON GANS, M.D., Philadelphia, Pa.

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CHLORALOSE, being a comparatively new drug, has had but little consideration as compared to the many other articles of the same group. It is a compound made from anhydrous chloral and glucose and was first discovered by Hefner in 1889. It belongs to the class of hypnotics, and is soluble in alcohol and hot water. Its taste is acrid, and to some even nauseous; it is therefore best exhibited in capsules.

This drug was originally introduced as a safe substitute for chloral, and has, I think, proved a very effectual one. In large doses its action upon man and lower animals is similar. When given to animals in fairly large doses, no symptoms appear for about 40 to 70 minutes. Then there is muscular disturbance, first made apparent by difficulty in walking, followed by muscular stiffness; this is soon followed by a deep sleep which lasts for a number of hours, varying in different cases.

The drug has shown no action on the circulatory system; death in the lower animals having been caused by arrest of respiration. In man no fatal case is recorded. The drug causes no fall of temperature. The symptoms to be noted in large doses are entirely

nervous, and in the cases recorded by others, as well as those noted below, have not been of a dangerous character.

Case I.—Male, 36 years; suffering from a fracture of the spinous process of a cervical vertebra. The patient could not sleep on account of the strained position in which he was compelled to lie. He was given chloralose, 15 grains, and in 55 minutes was sleeping soundly. Next morning the patient reported having enjoyed a fine night's rest; he awoke once toward morning, but immediately went to sleep again. He remembers having fallen asleep very suddenly. There was no after-effect.

Case II.—Male, aged 34. Necrosis of the fibula. The patient had suffered intensely. Before admission to the hospital he had been given large doses of chloral, sulfonal, morphin and bromids alone, and in different combinations. Upon admission, large doses of chloral and bromid by mouth, and morphin, grain $\frac{1}{4}$, under the skin, repeated in two hours, were the only means of securing sleep on account of the osteocopic pains. He begged to be given a substitute for the hypodermic, for fear of becoming a morphin victim. He was, on the second night, given morphin, grain $\frac{1}{4}$, hypodermically, and chloralose, grains 5, by mouth. He slept well. On the third night morphin, grain $\frac{1}{4}$, was given under the skin, repeated once. He did not sleep. On the fourth

night, after chloralose alone, 5 grains, he slept well. On each succeeding night, until the bone was excised, he received a 5-grain capsule with happy results. On the fifth day, he complained of a bitter taste. Compound tincture of lavender, 3 drops added to the capsule, acted satisfactorily. The patient knew that he had pain even though asleep, but could not realize what it was. According to his own statement sleep came on very suddenly.

UNTOWARD ACTION.

Case I.—A negro, male, aged 30. Amputation of leg for tuberculous ankle joint. 9.30 P.M. chloralose given (15 grains). At 11.30 P.M. began muscular cramp, quickly followed by twitchings, first noticed about the head and jaw muscles; this in turn by drowsiness which promptly became stupor. Muscular twitchings were soon succeeded by clonic spasms which were general, but specially marked in the head, jaw and extremities. They appeared at intervals, but could be produced by slight stimulation, showing a highly sensitive condition of the spinal cord. The patient would rouse when his name was spoken very loudly in his ear, but was unconscious of all surroundings. There was an expression of distress rather than pain on his face. No incontinence of feces or urine. Pulse 80 to 92. Temperature 100.6° F., which was one degree higher than before chloralose was administered; probably due to muscular activity. Respiration 20. Spasms lasted four-and one-half hours.

Case II.—A male negro, 25 years. Extraction of bullet from forearm. The jaw dropped with rigidity forty-five minutes after the drug was taken. This was rapidly followed by muscular twitchings which appeared in jaw, upper and lower extremities respectively. Clonic spasm soon became pronounced. The patient was entirely unconscious of surrounding objects. If shouted at he would open his eyes and again relapse into stupor. The pupils were equal and normal. There was no incontinence of feces or urine. Spasm could be caused by slight stimulation. Temperature 100.4° F. Pulse 70 to 81. Respiration 21.

The results in these last two cases were due simply to the action of chloralose, and not to any contamination of a drug. All the cases

were administered to from the same prescription, the preparation being made by Merck. It might be worthy of note that both patients had been etherized within twelve hours.

The symptoms in both cases were almost identical. Sleep came on very suddenly, while consciousness was gradually regained. Neither patient realized that anything unusual had occurred, but both were very much refreshed and benefited by their sleep. A thorough examination of the urine and blood failed to reveal anything except that in both cases the red blood-corpuscles showed a tendency to rapid crenation and rouleau formation. There were no after-effects, as headache, stupor, or derangement of digestion.

According to most observers, the drug is of doubtful value as an analgesic, but these last three cases make it at least worth considering under this head.

Doctor Ch. Richet (*Ther. Review*, March 17, 1896) to whom the earliest study of its physiologic action is due, found occasional disadvantages in its use in hysterical cases and delirium tremens; but we have no less authority than Haskovec for the statement that it does good in a certain number of cases of alcoholic delirium by lessening the general trembling. Also, Ch. Féré has obtained good results in some hysterical cases. The same author reports favorably on a large number of cases of epilepsy and chorea. Taking all these statements into consideration, it would be wise in this class of cases to begin with a small dose and increase cautiously.

Leon l' Hoest (*Ther. Gazette*, Feb., 1895) has tried it in insane women, at the Hospice Sainte Agathe. He divided his cases into two sets: First, neurasthenics and melancholics without excitement, simply from insomnia; Second, cases with excitement and insomnia. In both sets of cases the results were favorable. In no case was the dose required more than 15 grains.

J. Sacaze (*British Med. Journal*, Sept., 1894) noticed that while using it, in several cases of phthisis pulmonalis, bronchitis (chronic and fetid) bronchiectasis, and other chronic pulmonary troubles, that it not only acted favorably upon insomnia, but had a decided action in controlling the night-sweats. He is not prepared to give any positive explanation as to the mechanism of the latter, but that it is a fact he is assured.

Having no action upon the circulatory system, chloralose is of great use in cardiac insomnia. From the above statements its therapeutic uses for insomnia are numerous, being especially valuable in affections of heart, lungs, throat and of the digestive tract.

It has no use as an antiseptic. Lang reports a case of poisoning, in which recovery occurred. The symptoms were those of mild chloral poisoning. (Hare.) This, it will be seen, differs entirely from the two cases recorded above, as might be expected from its physiologic action, the drug exerting no action upon the heart or respiratory system, nor on the thermogenic center. It may be best administered in capsules, but in the insane, with whom this is not practical, hot milk or beer may be substituted; the latter being preferable. Slight somnolence is the worst after-effect that has been noted, and this only in a very small number of cases.

The digestive tract in no case has suffered. In fact, in some cases the appetite has improved, but this probably was due to the better condition of the patient for having had sleep, rather than to any direct action of chloralose.

Its elimination is rapid, through what channels is not known. There is no cumulative effect. No drug habit results, as the same dose has been given over a long space of time without losing its effect.

The unfortunate part of the administration of this drug is the fact of its uncertainty of action, each individual having to receive his

proper dose, and there is absolutely no way of knowing this in advance. Its high price is also a disadvantage; but these having been overcome, it will prove of great usefulness.

In the Clinics

Under the Editorial Charge of DR. OAKLEY W. HERMANCE.

IN the case of a colored man, 25 years old, complaining of *hiccough*, at times so obstinate as to prevent sleep, and recurring for a day, or a day and a half, about once a month, Dr. Eshner advised *lingual traction* of the *tongue*, and for the *gastro-intestinal catarrh* present, prescribed *sodium phosphate*, half a dram in hot water before meals.

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In a recent clinic Dr. Davis brought before the class a case of *hystero-epilepsy*. The patient referred the source of irritation to the reproductive organs and imagined herself to be about six weeks pregnant. Examination made under ether showed the vulva to be of normal size and characteristic of the nonpregnant condition. The entrance of the examining finger into the vagina produced muscular spasms not only of the vagina but abdominal muscles. The cervix was small, hard, dimpled and slightly displaced forward. The fundus was examined bimanually and was found to be firm in consistency and under size. The whole uterus was somewhat smaller than normal.

Referring to this case Dr. Davis called attention to the *early signs of pregnancy*. First among these he spoke of the change in the shape of the uterus, which change begins in the earliest period. The uterus, which in a nonpregnant condition is pear-shaped, becomes more globular or jug-shaped in the gravid state, and the cervix shortens. This change in shape can be easily felt through the fornices of the vagina. The cervix also becomes softer. In the patient under notice none of these changes had occurred.

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THE REGISTRATION OF PHYSICIANS AS PHARMACISTS.

BILL No. 303, which has been reported to the House of Representatives of Pennsylvania from the Committee on Public Health and Sanitation, has a proviso, that any graduate of a medical college who has had not less than three years *medical* practice and who has been registered as a practitioner under the Medical Act of 1881, may be registered under the Pharmaceutical Act of 1887 without examination, and be granted a certificate which shall entitle him to conduct and carry on the retail drug and apothecary business as proprietor or manager. The requirement of the Act of 1887 that all pharmacists wishing to be registered shall have four years pharmaceutical experience, and shall pass an examination before the State Board of Pharmacy—whether they be graduates of schools of pharmacy or not—remains unchanged.

There has been no demand for such legislation as this on the part of the medical profession of the State, or the public, and those behind the movement are acting on their own responsibility in the matter. The pharmacy law of 1887 provided for the

registration of physicians as pharmacists, but the unwisdom of the special privilege was such that it was repealed in 1893, and the Medical Society of the State of Pennsylvania, at the time, endorsed the repeal, and to-day will doubtless consistently oppose the proposal to re-enact the law.

We have no hesitancy in expressing the belief that the best interests of legitimate medical and pharmaceutic practice—and what is more important, the best interests of the public, which should be the end of all legislation—will be best subserved by keeping both occupations entirely separate and distinct. The bane of modern medicine is the druggist-doctor, and the bane of modern pharmacy is the doctor-druggist. Medicine and pharmacy to-day have little in common save their origin and the final cause for both—the relief of suffering humanity. The physician studies the human frame in health and in disease, and the actions of remedial agencies to prevent and relieve diseased conditions. The pharmacist studies the physical and chemical properties of material substances to the end that they may be properly converted into medicinal products, and used in the treatment of disease. The work of each is on such radically different lines that it is not unfair to say, that a physician is hardly more fit to be a pharmacist than a pharmacist is to be a physician. As a rule, the man who attempts to practice both medicine and pharmacy fails to achieve the best results in either branch. Elementary pharmacy is taught to dental and veterinary students, as it is to medical men, and it would be just as fair to urge that dentists and veterinary surgeons should be registered as pharmacists as that physicians should be. There are some physicians who fail to realize the advances that have been made in pharmacy and allied sciences during the last half century. Despite beliefs to the contrary, an enormous amount of hard,

earnest work and investigation has been done. Legitimate pharmacy has been distinctly uplifted as a professional work, and practical medicine has been correspondingly benefited.

The bill to which reference is made should be defeated, and we trust that physicians will make clear to their representatives in the legislature that they desire its defeat.

J. W. E.

Editorial Note

Obedience in Compounding Prescriptions.

—In connection with our inquiry into the question whether or not a druggist is justified in dispensing a diluted fluid extract upon a prescription calling for a tincture or an infusion, the *American Druggist*, for April 26, 1897, states that the real point at issue is as to the therapeutic equality or inequality of a standard (official) fluid extract and a tincture made from the same. We can scarcely agree with our contemporary, even though we might decide this point in the affirmative. To put it the *Druggist's* way, however, our question would have concerned the therapeutic equality or inequality of an official tincture, and one prepared from a standard (official) fluid extract. The presentation of the subject in this aspect is, however, a mere evasion of our inquiry, and opens an entirely different question, concerning which there may exist legitimate differences of opinion, which could only be adjusted by a series of experimental physiologic and therapeutic investigations. The decision, however, does not reside with the druggist, even though he consider his judgment superior to that of the prescriber. He might as well dispense sodium instead of potassium bromid, or strophanthus for digitalis, or hyoscyamin for atropin, or ether for chloroform, because, in his judgment, the substituted drug possessed equal or superior

therapeutic efficacy. Our contemporary is manifestly wrong, apart from the question whether it is good practice to prescribe tincture or fluid extract or infusion. When a physician prescribes any of these, or any other recognized pharmaceutic preparation, it is clearly the duty of the druggist to dispense only that which is specified, and in this opinion we appear to be sustained by the body of both physicians and pharmacists. Our contemporary, moreover, makes certain erroneous statements, both as to the number and the tenor of the opinions published by us, which we would respectfully ask it to correct in accordance with the summary published by us in the issue of April 7 (Vol. vi., No. 16, p. 166); to which number should be added the three negative answers published in our issue of last week. There were in all received from physicians, 17 answers, of which 15 were unqualified negatives; one a qualified negative, and but one a qualified affirmative; from teachers of pharmacy, if we include Dr. Squibb, 3 answers, of which 2 were unqualified negatives, and one a qualified affirmative; from dispensing pharmacists, 8 answers, of which 5 were unqualified negatives, and 3 qualified negatives; not one giving even a qualified affirmative. Our position is thus overwhelmingly sustained.

A. A. E.

Current Literature

The Amblyopia of Strabismus.—The cause of the defective vision in monocular squint is unknown. It is contended by some writers that it is congenital, and by others that it is the result of the non-use of the squinting eye. Guillery (*Arch. f. Augenh.*, 1896, xxxiii) offers a new and plausible explanation for some cases. He says it can not be ascribed to a common cause for all cases, but in some the cause is undoubtedly intrauterine disease of the fundus of the eye. He bases his assertion on the result of the examination of a large number of infants made by Naumoff

who found alterations of the retina, hemorrhages in the macular region, papillitis, etc. These lesions disappear entirely in the course of a few years so that their traces cannot be detected by the ophthalmoscope, but the derangement and destruction of the minute cells of the retina are permanent and irremedial.

H. F. H.

Hanging After Tracheotomy.—Dr. Reineboth, of Halle, according to the Berlin correspondent of the *Medical Press and Circular*, reports the case of a man, who, in consequence of a sarcoma threatening suffocations had tracheotomy performed and a canula inserted. He got tired of life, however, and put an end to it by hanging, placing the strangulating cord above the canula so that respiration would still go on unimpeded. Death appeared to have taken place rapidly. The case shows that death by hanging is not brought about by preventing respiration, but by pressure on the large vessels. The position of the body also was such that, with continued consciousness, the man had not time to get on his feet again. It appears from this that loss of consciousness was as rapid as in ordinary hanging. The autopsy showed anemia of the cerebrum, extreme fullness of the arteries of the base, slighter fullness of those of the pia mater, hyperemia of the pons and medulla. Death by hanging, without closure of the air-passages, is not unknown in literature, but it would be difficult to find a parallel to the above.—*The Boston Medical and Surgical Journal*, March 25, 1897.

Intestinal Sand and Muco-membranous Enteritis.—In two cases mentioned by Mathien and Richard (*Gaz. hebdom. de Méd. et de Chirurg.*, May 28, 1896), the feces were mixed with grains of yellow sand, one-quarter to one-half millimeter in diameter. In one case, the grains were often agglutinated, and formed masses much resembling white pepper kernels. In their composition, the salts of lime predominated, and in this they resembled the calculi sometimes found in the appendix, intestine, nasal passages, bronchi, etc. In both cases mucoenteritis was present, which the authors looked upon as the cause of the concretions, as the membranes contained microscopical crystals of calcium phosphate. The abnormal deposits of these crys-

tals in the mucous membrane would, it was thought, cause mucoenteritis, and the stasis due to constipation would allow the formation of the palpable grains of sand.—Others have mentioned the coexistence of mucoenteritis and intestinal calculi.—*Med. News*, August 29, 1896, p. 24.

Diagnosis of Primary Malignant Tumors of the Pleura and Lungs.—Dr. G. Zigari, of Naples, having had occasion to observe seven cases of this character, has made a special study of the difficult subject of diagnosis *intra vitam*, and groups the special clinical symptoms as follows; (1) insidious commencement of the affection; (2) marked general debility; (3) absence of fever; (4) persistent, increasing pain; (5) circumscribed edema of the chest; (6) development of the lymphatic ganglia on one side of the thorax, exclusively or more prominently; possible turgescence of the veins in the anterior and lateral parts of this side; (7) sweats and more elevated temperature on one side of the thorax; (8) distress in breathing and more intense oppression than can be ascribed to the quantity of fluid obtained by puncture; (9) irregular distension of the thoracic cage, especially in the superior and anterior region of the chest; (10) intercostal spaces neither prominent nor dilated; (11) complete dullness, without the slightest elasticity, in the superior and anterior region of the thorax; zones of dullness close to zones of resonance; (12) dullness over the manubrium or the sides of the sternum, which indicates not only the displacement of the mediastinum toward the sound side, but also the irregularity of this displacement; (13) skodaic resonance over the clavicle and sternum; (14) the laryngo-tracheal murmur distinctly transmitted to the superior regions; (15) persistence of the plessimetric and acoustic phenomena even after evacuation of the fluid in the pleural cavity; (16) this fluid is very thick, rich in fibrin, hemorrhagic, with histologic elements special to the neoplasm; (17) peculiar sensation of having penetrated into a compact, deep, thick mass, when inserting the needle; (18) puncture is without effect, or the fluid forms rapidly again; (19) displacement of the heart and liver, out of all proportion to the amount of liquid withdrawn.—*Arch. Clin. de Bordeaux*, March, 1897; *Jour. A. M. A.*, April 17, 1897, page 749.

Selection

SOME FURTHER CONSIDERATIONS OF HOSPITAL AND DISPENSARY ABUSES.

WHAT does the vainglorious Charity King care if the sick, by subterfuge and deceit, and with his connivance and assistance, cheat the poor doctor of his modest dues? Will not the patient, by this crime, have more money with which to buy of the Charity King his high-priced coal and gas, his flour and sugar, and be readier with the exorbitant rent for his unsanitary and stuffy rooms? As long as he has his own servile physician at his beck and call, what does he care for the rank and file of the profession? For the meek and devoted physician, whom he makes give away his brains at his pet dispensary, he has no more respect than for his butler or coachman; and why should he? Does he not remember how this same man struggled, nay, grovelled, for the appointment? How he has for years willingly worked for his own impoverishment and debasement? How, when that has been effected and he has died in the harness poor and devoid of self-respect, a hundred other men have fallen over each other in their eagerness to wear the shackles? Why should we look for respect when our own self-respect falls so low? Why grumble when the Charity King, to intensify the refulgence of the benevolent halo surrounding his emphysematous head, gives freely what are not his, our brains and very life!

No sane person would admit that, in 1893, one-third of our population, 1,800,000, were paupers. Yet, in that year, our city dispensaries treated 680,789 patients. That a large number of these recipients were unworthy does not ruffle organized charity in the least, but, had the donations been food or shelter instead of doctors' brains, what a mighty howl would have gone up.

Meanwhile there is something that even the humblest member of the profession can do to mitigate the present deplorable state of affairs. He can treat poor patients gratis at his office, and patients with very moderate means for what they can afford to pay, however small the fee. Thus will his professional self-respect be retained. Then will his charity be true charity and his consideration will be rewarded by the gratitude of patients not yet calloused by beggary nor debased by imposture. In this quiet way some inroads could be made upon this great injustice to the profession and evil of the community.—*The Medical News*, March 27, 1897.

New Publications

THE DISEASES OF INFANCY AND CHILDHOOD.

For the use of students and practitioners of medicine. By L. Emmett Holt, A.M., M.D. Pp. 1117. D. Appleton & Co. 1897.

This is, perhaps, the best treatise on diseases of children, which has been presented to the American public of late years, being more complete, thorough and ample than

any of several admirable works on the same subject. Some of these others are deficient in certain particulars; one classical New York work being conspicuously lacking in modern revision, though otherwise splendid; while one recent treatise in the form of lectures is so unbalanced that hundreds of pages are devoted to those subjects which are obviously the special interest of the author and only half a page vouchsafed to typhoid fever.

Several books on Pediatric Subjects have appeared recently, one on the Therapeutics of Childhood—a masterpiece of writing, a mine of matured experience, but insufficient as a handbook. We have been constrained to look to England for practical text-books, and find in Eustace Smith, Ashby and Wight and Carmichael excellencies marred by peculiarities of suggestions on medication unsuited to our needs, and narrowness in certain directions inadequate to our geographical conditions. Germany offers some works, useful, but not entirely satisfactory. The work of Dr. Holt is symmetrical, thorough and eminently practical. It is the outcome of years spent in wide observation, and a rare judgment has selected and arranged this knowledge, along with diligent research among all that has been published bearing on the subject. It would be trivial and in bad taste to search about for minor faults which doubtless may exist, but have not met our eyes in a faithful reading of almost the entire volume. It might be possible to call attention to points on which we should not agree—especially among the mooted points on diphtheria—but candor compels the assertion that even here the avowed cavalier would find small scope for criticism. Pathology has received special attention, and there are clear descriptions of lesions, most important for a real understanding of the phenomena of disease. The whole work is largely a record of personal experience, and this is as it should be in a treatise of this scope. In short this book is admirable in all ways, satisfactory to both student and reviewer, and one in which author and publisher compel admiration for matter and manner. J. M. T.

BOOKS RECEIVED.

CLINICAL LESSONS ON NERVOUS DISEASES. By S. Weir Mitchell, M.D., LL.D., Edinburgh. 12mo, pp. 305. Lea Brothers & Co., Philadelphia and New York. 1897.

THE PHILADELPHIA POLYCLINIC

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TRAUMATIC TRANSPLANTATION OF CILIA INTO THE ANTERIOR CHAMBER AND ON THE CONJUNCTIVAL SURFACE OF THE LID.¹

BY GEO. C. HARLAN, M.D.

Emeritus Professor of Diseases of the Eye in the Philadelphia Polyclinic; Surgeon to Wills Eye Hospital, etc.

J. S. G., a machinist, was struck in the left eye with a piece of steel three hours before admission to the Wills Eye Hospital. There was a punctured wound at the lower corneal margin, with prolapse of the iris. There was blood in the anterior chamber, but the lens was uninjured. The patient was put to bed and iced cloths were applied, and two days afterwards, while examining the eye by oblique illumination, the Resident Surgeon, Dr. Bloomfield, noticed the cilium in the position in which it now rests—stretched across the pupil with its bulb on the nasal and its point on the temporal side of the pupil. There has been considerable reaction, but the eye is now nearly quiet.

The case of transplantation to the inner surface of the lid occurred at the Pennsylvania Hospital. The lower lid of a boy, 13 years of age, had been severely lacerated five or six years before and a tuft of cilia had been carried back to the posterior end of the wound, at the attached edge of the lid, where the bulbs had taken root in the cicatrix. These lashes were more luxuriant than their fellows which remained in their natural position, and were growing vigorously directly against the cornea. As there was slight entropion, a strip of skin taken from near the margin of the lid was transplanted into the wound left by dissecting out the cicatrix containing the displaced cilia. This flap partially sloughed, but the result of the operation was entirely satisfactory.

The case of cilium in the interior chamber is the fourth case of this rather rare accident that I have seen. Three others that I reported in the Wills Hospital Reports (January, 1895) were, oddly enough, all under observation in the Hospital at the same time; one in Dr. Risley's clinic, one in Dr. Oliver's and one in my own. In Dr. Risley's case, in which there were two cilia, the sight had been destroyed by the accident, which occurred twenty years before the case was seen. In Dr. Oliver's and in mine there was traumatic cataract which followed the course usual in cases without this complication. In my case, I removed four cilia from the anterior chamber and extracted the remains of the lens, several months after the accident, with an excellent result. The other patients failed to return to the Hospital and were lost sight of. There was no reason to suppose that the cilia caused irritation in any of these cases.

Arlt, in Graefe Saemisch,² refers to a case observed by Pagenstecher in which a cilium remained for ten years in the anterior chamber, without causing irritation, and F. Meyer, of Lisbon, reports a case³ in which two cilia in the anterior chamber produced no reaction for thirteen years. The eye afterwards developed a well-marked keratitis bullosa, the connection of which with the presence of the cilium is, however, by no means clear. The cilium

¹ Read before the Ophthalmological Section of the College of Physicians of Philadelphia.

² Graefe und Saemisch, Vol. iii, p. 388.

³ *Centralbl. f. prakt. Augenheilkunde*, January, 1889.

in this case lost their pigment, and appeared as white threads, which seems to be unusual.

In a case like the present one, in which the lash is very fine and can be seen only in favorable illumination and with a lens, it may be a question whether more risk would be incurred by attempting to extract it or by allowing it to remain. Simply as a foreign body, it is probable that the presence of a cilium in the anterior chamber is not injurious. The chief danger seems to be that epithelial cells carried in with the bulb may be engrafted on the iris and give rise to the epithelial so-called pearly tumor, which was formerly confounded with the iris cyst. In a case referred to in my former report⁴ such a growth appeared after the eye had remained quiet for twelve years, and the lash was found projecting from it. This condition has been met with in a number of cases, and has sometimes been described in old reports as "trichiasis iridis," under the impression that the lash had been formed there. On the other hand, in Dr. Risley's case two cilia had rested against the iris for twenty years, and there was no indication of a growth, nor was there in the other cases referred to above. I will not enter upon the discussion of pearly tumors of the iris, as I have no new facts to contribute. The subject has been discussed at some length by Monoyer,⁵ Rothmund,⁶ Masse,⁷ Schweigger, Giraud-Teulon, Wecker and others.

⁴ Leviste and Valude, *Annales d'Oculistique*, September, 1894.

⁵ *Annales d'Oculistique*, 1872.

⁶ Heidelberg, *Ophth. Soc.*, 1871.

⁷ *Bull. et Mem. de la Soc. de Chir. de Paris*, VII, p. 185.

Hairs of a different kind have been found in other tumors of the iris. Graefe and Stoeber⁸ have described dermoid tumors (probably of congenital origin?) containing masses of fine almost colorless hairs.

I have not met with any record of a case similar to the one of transplantation of cilia to the inner surface of the lid. A case reported by Solomon⁹ has been quoted as one of this character, but reference to the original shows that, seven or eight months after an injury, a tuft of cilia with sound bulbs was found projecting from the lachrymal punctum. It is well-known that single, loose lashes sometimes find their way into the punctum, carried there by the flow of tears and the action of the lids.

Nuyts, of Lille,¹⁰ reports a case in which several lashes were found involved in a wound of the bulbar conjunctiva, and refers to another such. The presence of the lashes caused considerable conjunctivitis, and they were removed soon after the accident.

Uhthoff¹¹ found five cilia, two of them firmly imbedded, in a conjunctival cyst removed five weeks after an injury, and suggests that many of such cysts might originate in this way. When there is extensive proliferation of epithelium on the inner surface of their walls, they might have the same origin as pearly tumors of the iris, but in the case of simple serous cysts the cilia could be supposed to act only as foreign bodies.

⁸ Giraud-Teulon, *Ibid.*, p. 187.

⁹ *Brit. Med. Journ.*, 1887, p. 675.

¹⁰ *Revenil d'Ophthalmologie*, May, 1896.

¹¹ *Berlin. klin. Wochenschr.*, 1879.

SOME POINTS IN THE ETIOLOGY AND TREATMENT OF ENDOMETRITIS.

BY ELIZABETH M. CLARK, M.D.,

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AMONG the varied diseases of women, there is none perhaps more difficult to treat with satisfaction both to patient and doctor than endometritis.

If we consider the disease in the light of its possible consequences rather than alone in its aspect as presented by the patient applying for treatment, certainly the importance

¹ Read before the Woman's Alumnae Medical Society, April 5, 1897.

of clearly understanding its etiology, pathology, and the indications for the special form of treatment to be instituted, cannot be overestimated. Remembering the lymphoid character of the corporeal endometrium, that the lymph spaces of the mucous membrane and of the muscularis pass the lymph along to large tubes in the broad ligaments, one can readily see that the road from uterine inflammation to a cellulitis or a pelvic peritonitis is easily traversed.

Variously classified by text-books, clinically it is sufficient to designate it first as *acute* and *chronic*. These terms apply to all forms of inflammation alike, of the muscular or cellular structures, as well as to that of the mucous and serous tissues. Although the lining membrane of the body of the uterus differs both in structure and function from that of the cervix, and has also a dissimilar glandular secretion, yet both are alike susceptible to inflammatory conditions induced by the same causes. Disease of one is often only the extension of a pathological process in the other. Much more to the point, giving at once a clue to the treatment, is the classification of endometritis according to kind; as *simple*, *septic* and *specific* (gonorrheal).

The first is rarely, if ever, found in the acute form. There may be acute congestion of the pelvic organs from sudden cold, sudden stoppage of the menses, various imprudences, and so forth. That is usually speedily relieved. No doubt such a condition often antedates a chronic endometritis. It is likewise sometimes dependent upon a malposition which leads to venous stasis, or perverted action of local nerve ganglia, or both. The majority of cases of chronic and subacute endometritis may be traced to *neglect* on the part of the physician, attendants, or the patient herself during childbirth and the puerperium. This statement may appear bold, but who that does clinical work can doubt it? The large, heavy, flabby womb of subinvolu-

tion, torn cervixes and ruptured perineums are far too common among women who have born children. Here, as in the more serious forms of pelvic disease, prophylaxis should have been the watchword. But since we must accept things as we find them, the question confronts us, "What shall we do to effect a cure?"

While it is true that each case must be studied individually, it is also true that a few general rules apply to all alike. Removal of the cause, cleanliness, counter-irritation, depletion, sedation and tonic medication must be our aim in treatment.

The normal secretion of the uterus is free from germs of any kind. The internal os of a healthy uterus is so tightly closed as to exclude the entrance of any from the outside; but we know that they are always to be found in the vagina and cervix. Chronic endometritis, however, causes the entire muscular tissue of the uterus to lose its tonicity, the cervical canal becomes patulous, and various pathological germs are added to an increased and unhealthy secretion.

Hence, not only should the vagina and vaginal portion of the cervix be cleansed and freed of secretion and germs, but *the endometrium also should receive similar care before making any topical application.*

The same principle applies that governs the treatment of the nasal mucosa, indeed, the cleansing is in itself partly curative. If the sound can be passed with ease, a uterine irrigator of the same size can also be passed, one that provides for the return flow, and a copious alkaline, antiseptic solution allowed to flow in and return. I have found this method especially applicable to uteri that have not properly completed the process of involution after parturition, to cases of chronic catarrh due to cervical tears, to those cases where the prolonged hot douche is of use, in fact, to any condition where a patulous canal admits of the free passage of the sound.

After the irrigation, the instillation of a few minims of equal parts of carbolic acid and Churchill's tincture of iodine, by means of the Braun syringe, is often beneficial. Then with glycerin, boro-glyceride, ichthyol-glycerin, or other depleting and sedative applications on a small wool or cotton tampon, we may confidently expect good results.

The part played by constipation of the bowels, in keeping up congestion of the pelvic tissues, must not be overlooked. Often after directing our efforts towards breaking up the habit and inducing a daily free evacuation, the symptoms that led the patient to seek relief will vanish like magic. It is scarcely worth while to mention the necessity for general tonic medication.

We are all too familiar with the reflex neurones, the anemic appearance, the faulty performance of all the functions, evinced by the victims of this malady to neglect that very essential part of the treatment.

In *septic endometritis*, as is well known, an infective germ is always present, usually the staphylococcus, or its more deadly brother, the streptococcus. So rapid is their multiplication, that we have to deal with an endometritis, *per se*, for a very limited time. The germ once introduced, it finds a soil prepared and well adapted for its nourishment and multiplication.

If not arrested without delay, contiguous structures are quickly invaded through the medium of the lymph channels, and metritis, cellulitis and pelvic peritonitis follow in natural sequence. If the dose has been large enough, or the germ sufficiently virulent, a general peritonitis rapidly supervenes. Should we recognize the danger, and resort to the timely use of the antiseptic intra-uterine irrigation, with additional treatment as indicated, we may at once eradicate the cause, and be rewarded by the thanks of a rapidly convalescing patient.

If this treatment should not avail, then

must we resort to the curette, often to find that we were too late in the use of either. The clinical picture, as presented by one in whom the poison has been absorbed to any great extent, is a sad one indeed, and is outside of our present subject. But keeping it before the mind not only as a possible but as a *certain* consequence, if the one moment of golden opportunity be neglected, should make us alert in the recognition and management of such cases when we meet them.

According to the "American Text-Book of Gynecology," "of all the forms of virulent endometritis, the gonorrheal form is the most common."

In the February number of the *Annals of Gynecology*, Ricord and Lewin are quoted as stating that 80 per cent. of the men in large cities are affected with gonorrhea; other authorities say that, of those who have once contracted the disease, only 10 per cent. are cured; also that, among 100 women who marry such men, only ten will be found sound. The number of those who lose their lives as a result of this infection is large; larger still the number of invalids—women, whose usefulness is greatly impaired, whose lives are wrecked thereby. If they only applied for aid at the beginning of the first attack, the usual form of treatment instituted at once would yield us brilliant results. That, however, would be to cure the condition before it really became one of endometritis.

Supposing the uterus to be invaded, I have found the following method of treatment effective:

Rest in bed, daily uterine irrigation with a strong antiseptic solution (preferably of mercuric chlorid 1-2000, or stronger), followed by an application to the endometrium of pure carbolic acid, or the mixture already referred to; then freely dusting the vagina with tannic acid before using the glycerin or dry tampon. Gonorrhea in the female, if

seen in the early stages, is quite amenable to treatment. Unfortunately, however, the passage of the infection from uterus to tubes by direct tissue extension is rapid. For this reason, when the simple treatment just outlined does not speedily control the disease, we should not hesitate to use the curette. Microscopically, it has been shown that the gonococci do not penetrate deeply beneath the

surface, also that they do not advance by the lymph stream to the same extent as the staphylococci. Curettement removes the source of the infection to a great degree, if not entirely, and lessens the chance of multiplication. Even should the tubes be already involved, I believe it to be a good and rational procedure.

Society Proceedings

PHILADELPHIA COUNTY MEDICAL SOCIETY.

APRIL 14, 1897.

IS THERE A DAILY RHYTHM IN EPILEPSY?

This paper, by A. FERREE WITMER, M.D., Philadelphia, is a preliminary report from the Pennsylvania Epileptic Hospital and Colony Farm, where the observations were made.

During a period of three months from January 1st, the convulsions occurring in twenty patients were noted, and exact time records made for comparative study. Twelve of these patients were females, and eight males. Their ages varied from eight to fifty-three years.

Following the etiologic classification¹ of epilepsy as adopted by the Craig Colony, of New York, we find in our tables three cases of genito neuropathic origin; two following infantile cerebral palsy (post-paralytic epilepsy), one of imbecile type, and one acquired by vicious habits. There was no case of hysteri-epilepsy; none due to trauma or to senile changes, and none inherited. There were, however, twelve cases in which the convulsive outbreaks began at periods varying from the ninth to the twenty-fourth year. These cases, after a careful examination for possible etiologic factors, particularly that of early cerebral or spinal hemorrhage,² we have called adolescent epilepsy. While brain-growth is practically complete at the close of the fifteenth year, yet as Venn³ found that the heads of the Cambridge students increased in length, breadth and depth throughout the collegiate course, it is probable that the disturbances incident to growth may be felt longer than is commonly supposed.

A time-interval of not less than fifteen minutes was permitted to intervene before recording the second of two seizures. This was done to avoid as far as possible the condition of status.

The number of convulsions tabulated is over twelve hundred. Consciousness was lost in each.

Bannister⁴ has recently contended that consciousness may be preserved during the seizure. It seems probable, however, that a careful analysis of such cases would reveal some disturbance of the conscious state. Wundt⁵ defines consciousness as the inter-connection of psychic compounds, and, further, he reminds us that every psychic compound requires the co-operation of numerous elements and many cortical regions. A disturbance of one of these cortical regions, such, for instance, as the arm-area, is sufficient to break the complex of inter-connection.

It is well known that the nervous system is subject to daily variation. This rhythm is the outcome of a great biologic law, by which all sensitive vital substances are forced to alternate between rest and activity. In the nervous system, however, where this sensibility of the organism finds its most intense expression, the alternation of activity and recuperation is most marked.⁶

Fresh proofs of this are afforded by the now classic experiments of Hodge.⁷ This investigator stimulated by electricity the nerves leading to the spinal ganglion cells of a cat, and at the end of one hour's time found that the nuclei of the stimulated cells had

shrunk twenty-two per cent. After a period of sufficient rest, which would vary in amount with the age of the animal, the nuclei regained their normal size.

Lombard⁸ ascertained by experiment that the energy in the muscles, and consequently also in the central cells, undergoes rhythmic variation in the course of each twenty-four hours. The result of these experiments I have attempted to show in the accompanying diagram modified from Lombard (Fig. 1). In the left-hand lower corner the marking 4 A. M. represents the time of least intensity of the nervous system in the morning hours. From this time there is a gradual rise in intensity until the maximum is reached at 10 A. M. From then on there is a corresponding decline until 4 P. M., and the point of minimum intensity is reached in the early evening hours. This in turn is followed by a gradual rise to 10 P. M., and this again by a slow fall to 4 A. M., and so on. Frequent illustrations of these rhythmic states are afforded by bicyclists making a tour, who state that at eleven in the morning they would be riding swiftly with little effort; at about three in the afternoon they would begin to feel much fatigued; while at six or seven in the evening their strength would seem to return like a tidal wave."⁹

The second chart shows the time scale as in the preceding chart, with the addition of the total number of convulsive attacks for that time marked.

(Fig. 2.)

In every case in which epileptic outbreak occurred between the half-hours, credit was given to the half-hour the nearer in time. For instance, 12.12 is recorded as 12; 12.17 as 12.30, etc. When the convulsions occurred at the quarter-hour, the number of convulsions for that time was equally divided between the hour and the half; thus ten convulsions at 12.15 are recorded as five at 12 and five at half after.

Glancing over the chart, it will be noticed that the greatest number of attacks occurred at 5 A. M.—forty-five, or one-twenty-seventh of the entire number being noted at this time. The least number, fourteen—one-eighteenth of the total—is recorded at 7 P. M.

This record is fairly in accord with the theory of a dynamic expression of an inhib-

itory insufficiency in these states, as advocated by Langdon.¹⁰

Richardson¹¹ has recently reminded us that the most dangerous hours of the twenty-four to the melancholic are the latest hours of the night. Depression is then greatest, and the power of resistance to the suicidal impulse is least effective. This fact is of interest here, as we find that of the total of over twelve hundred seizures, seven hundred, or about sixty per cent., occurred during the dark hours, and this although but one of the patients had nocturnal epilepsy.

This proportion is shown in the third chart, in which the light hours, with the number of convulsions occurring at the different periods of time, are indicated in the left hand scale, while the corresponding dark hours are shown to the right of the figure.

The number of convulsive seizures that we have tabulated is doubtless too few to afford a basis for positive statements, yet the results obtained are strongly suggestive of an origin of the epileptic outbreak as advanced by Dr. Dercum¹² before the society at a recent meeting.

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THE PHILADELPHIA POLYCLINIC

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PHILADELPHIA, MAY 8, 1897

AN APPEAL FOR FAIRNESS.

THE signs of spring are multiplying on all sides, and the voice of the recent medical graduate will be soon heard in the land. There will be many of him, and not a few of her, and their ways will not be so easy as was the lot of those who took their degrees some years ago. Then, there was nothing for the recent graduate to do but to select a neighborhood, open an office, and await his success (or failure); but now a serious task is still to be mastered. State Boards of Examiners abound in the land, and the possession of a diploma is little more than a certificate of eligibility to the ordeal which they impose.

The methods that have been resorted to for raising the standard of the medical profession have been by no means gratifying to those who would like to see it an independent body, resting its claims to public influence and private respect only on its ethics and science. It is much to be regretted that the purification that was undoubtedly necessary could not have been undertaken by its own members, but the power of commercial medical schools, the "companies of seven," was too great, and the small body of the profession seeking for reform could only wait until an

exasperated public came to its aid to demand a change. This official interference has unavoidably raised certain irregular and schismatic bodies into a position of importance that they could not have otherwise attained, and given them a little longer life.

It is not our purpose, however, to discuss this phase now. State Boards exist, and before long they will be asking questions on a great variety of topics, more or less allied to medical work. Our appeal is for strictness in the conduct of these examinations, and clearness and appropriateness in the questions. We have proof that cheating has, on some occasions, been rife; so frequent and bold, indeed, that it could scarcely have escaped the notice of the examiner-in-charge. From inspection of numerous question-papers, we know that questions are often impracticable in character, out of the proper bounds of the subject, or asked in obscure form. Some allowance should be made by the examiners for the mental stress under which each candidate labors. This can scarcely excuse ignorance or stupidity, but it does bring about a certain degree of obtuseness and confusion, even with well-prepared students. The regulations, in many states, by which those connected with medical teaching are ineligible to appointment on the examining boards, interfere with the selection of persons who would be especially qualified, in some respects, at least, to conduct proper examinations. We do not quarrel with the principle, however; there are good reasons why those connected with colleges should be excluded, but the examiners should make careful study of the methods in vogue in college examinations, and endeavor to follow the general trend of these. Especially is it important that all questions should be explicit in language, so that they may be understood in the same way by all, and require no verbal commentary by the examiner. Even at the risk of narrowing the scope of the exami-

nation, efforts should be directed to keep the questions well within the topic under discussion. A medical education is not framed with a view of developing general intellectual culture; it is intended as a preparation for obtaining a livelihood. Its practical aspect is its most essential one, and to the development of its clinical features all possible influences should be directed. Chemistry and physiology are so nearly allied to entrance-requirements, that it would seem advisable to omit them from the list of topics upon which the graduate is examined, or, as has been suggested, control the teaching in them by official examinations in intermediate years.

H. L.

Editorial Notes

The Medical Society of the State of Pennsylvania will meet at Pittsburg on May 18, 19 and 20, 1897. An attractive program has been arranged.

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The Micro-Organism of Mumps.—It is reported from Berlin that Prof. Leyden has obtained from the secretion of the parotid glands and from the pus from the inflamed glands in cases of mumps a diplococcus which he believes to be the cause of that disease. Inoculation experiments have thus far proved unsuccessful.

Current Literature

REPORT ON BACTERIAL PATHOLOGY.

BY DR. M. V. BALL, Philadelphia.

The Intestinal Bacteria of Nurslings.—Koloman Szego (*Archiv. f. Kinderheilkunde*, vol. 22, Nos. 1 and 2). In an extensive examination of the feces of new-born children and nurslings, Szego finds that, in the normal feces, there are seldom more than four or five species of bacteria, and usually only one or two in the pathologic feces. The germs make their appearance first

about ten hours after birth, and in most cases the mouth and anus are the gates of entry. The milk of the mothers showed bacteria present in one-half of the examinations, but the germs cultivated were only staphylococci, (the *cereus albus* in nearly two-thirds of the cases). The water of the bath and the air of the bedroom contain many varieties of germs, but the meconium showed germs which are not to be found in the milk, the water, or the air. The principal bacteria found, and such which seem to be especially intestinal in their nature, were two varieties of the colon bacillus, called by Szego A and B.

Bacillus coli A is found in the meconium, no matter what other conditions prevail. This germ is probably omnipresent, although not always recognized; but once it gains entrance to the intestine, it finds a most suitable soil and speedily pushes aside all other bacteria by its rapid growth, remaining forever after the normal resident of the intestines. The *bacillus coli* is, therefore, the earliest of intestinal flora in time, and the most important in point of activity, and does not seem to depend on the food, the water, or the air. The author finds no difference in the microbic contents of the feces of the normal nursing, and the nursing suffering from what he calls ordinary indigestion, or dyspepsia—a dyspepsia, in which there are no great constitutional symptoms, and the feces simply contain undigested casein, without being colored green. He also finds the reaction of the stool sour even in the first few days.

The Present Knowledge of the Parasitic Origin of Carcinoma.—D. B. Roncali (*Centralblatt f. Bacteriologie, Parasiten-Kunde u. Infektionskrankheiten*, Band 21, No. 10). Summing up all that has been said on the parasitic theory of carcinomata, Roncali finds the following facts are at hand: (1) In the protoplasm of the cell of malignant tumors found in man and the lower animals, bodies have been discovered, which are foreign to the organism and which are morphologically identical with the so-called coccidia observed by various persons in the cells of epithelioma. These bodies are also identical with blastomycetæ found in experiment animals which have been inoculated with organized ferments. (2) These bodies are found in the growing portions of the tumor, the periphery,

and are in no wise connected with degeneration. They react to definite staining methods, which same methods produce reactions with pure cultures. (3) The examinations of pure cultures show them to be composed entirely of blastomycetæ and when they are inoculated into animals, they give rise to growths, differing, however, with different species of animals, the higher mammals being the least susceptible. Some forms of blastomycetæ produce in dogs new growths, which spread through the lymphatics and kill by a cachexia, and some, when inoculated in pure culture into the mammary gland of a dog, have produced new growths of an epithelial nature.

Orthopedic Treatment of Spastic Paralysis in Children.—Dr. Samuel Ketch states that patients thus affected are those whose mentality is (1) *nil*, (2) diminished, and (3) normal or nearly so. The treatment should include special education of the muscles. "I have never seen any advantage from the use of electricity in any form. If used at all, constant current may have a good sedative effect. Massage has but little value in these cases. Mechanical treatment is directed to improvement in locomotion or reduction of deformity, and produces its best effects in patients whose intellects are least impaired, and in deformities of the lower extremity, especially when the judicious use of the superincumbent weight corrects the elevated and inverted feet. Tenotomy is certainly a useful resort. Opposition to it is based on theoretical grounds, and the results in patients that are not proper subjects for operation, or whose after-treatment was neglected. With growth there is a lessening of the spastic element, and the degree in which this has been displaced by a fixed deformity should be considered in undertaking mechanical or operative treatment. Patients in whom the deformity is the result of marked spasm, resist treatment or are liable to relapse. Apparent mental improvement occurs, with better locomotion and general improvement."

Acetanilid, with Boric and Carbolic Acids as a Surgical Dressing. Dr. W. A. Fallas (*Medical News*, Feb. 6, 1896) was led to seek some addition to acetanilid which would fully inhibit suppuration. He first tried boric acid, acetanilid, and carbolic acid;

but the powders were not sufficiently absorptive, and the compound was too moist and pasty. After many trials he used this: Powdered acetanilid, 48 per cent.; powdered boric acid, 15 per cent.; powdered starch, finely sifted, 35 per cent.; carbolic acid, liquid, 2 per cent. This compound, though slightly moist and adhesive, has all the effect of a dry dressing. Its comfort leaves nothing to be desired; there is not from first to last the least discomfort except a momentary smarting on the first application. The most exquisitely sensitive sore can in a few days be handled with impunity. There is no odor, even of the carbolic acid. It absolutely inhibits suppuration where it can reach the wound surface, and it checks and quickly abolishes suppuration if that be already present. The powder should be changed twice a day as long as there is a discharge to moisten it; soon, however, the wound becomes absolutely dry, and the powder may be left for days undisturbed, and will still be found as dry as when applied, unless there is a pocket from which pus may come. Cicatrization is rapid and satisfactory.

Obviously, this powder would be unsuitable for introduction into a cavity, unless it was intended that the cavity should granulate from the bottom; and in that case the possibility of easy removal of the masses formed by the pus soaking into the powder before the wound becomes dry, should be considered.

In the Clinics

Under the Editorial Charge of DR. OAKLEY W. HERMANCE.

IN the case of a man of 60 years, presenting himself at the clinic of Dr. S. Solis-Cohen, attention was called to the fact that as a rule the state of the *cardiac muscle* is of greater importance than valvular conditions. In this case murmurs of an irregular and inconstant character were heard, both at the base and apex; but the history, the rational symptoms, and especially the state of the arteries, lead to the diagnosis of myocarditis, with general atheroma, rather than to a diagnosis involving adhesions or extensive vegetations affecting the valves.

News Items

THE 40th annual meeting of the Missouri State Medical Association will meet at The Century Theatre, St. Louis, Mo., May 18, 19 and 20, 1897.

THE SEMI-CENTENNIAL MEETING OF THE AMERICAN MEDICAL ASSOCIATION.—The semi-centennial meeting of the American Medical Association which will be held in Philadelphia on the 1st, 2d, 3d and 4th of June, 1897, bids fair to surpass in the character of the entertainment, the scientific papers and the number in attendance any meeting which has heretofore been held. The Committee in charge have been able to obtain large and roomy places of meeting for the general meetings and the Section meetings, all within a single block and within very short walking distance, or immediately adjacent to the largest and most comfortable of the Philadelphia hotels. For the week preceding and following the meeting the Committee of Arrangements have also arranged clinical courses, which will be open without charge to all physicians who may visit the city at that time. These courses cover every branch in Medicine and its specialties and will afford visitors the opportunity of seeing the active clinical work of all the great teachers of Philadelphia, which is now as it has been for so many years in the past in every respect the medical centre of the United States.

Hospital Appointments at the Philadelphia Polyclinic.

ELECTION OF RESIDENTS AND EXTERNES.—On May 18th, 1897, the Board of Trustees will elect two resident physicians, to go on duty June 1st, to serve for eight and twelve months respectively. Also two externes, to go on duty June 1st, and serve for one year.

These elections will be made on nominations from the Faculty, and all applications should be addressed to the Secretary of the Board of Trustees, at the hospital, or to Dr. Addinell Hewson, Chairman of the Nominating Committee, 1508 Pine Street.

Any further information can be obtained from the Superintendent at the Hospital.

CHANGE IN THE DUTIES OF RESIDENT PHYSICIANS IN THE POLYCLINIC HOSPITAL.—The Board of Trustees has made the follow-

ing changes in the duties of the House Staff, which will go into effect on June 1st, next.

Hereafter the terms of service for Residents will commence on June 1st, October 1st, and February 1st, respectively.

The duties of the three residents will be as follows:—Senior Resident: Sole care of private rooms, including histories; supervision of all house cases; first assistant in all major operations where the aid of a resident is required.

Second Resident: To accompany Senior Resident in daily ward rounds; do minor dressings, and assist in minor operations as directed by the Senior Resident; histories of all ward cases.

Junior Resident: Etherizing all house and clinic patients, except when the latter cases interfere with house cases, when he shall request an externe to take charge of clinic cases requiring ether; examination of all urine, blood, sputum, etc., and entering results on histories.

In all other particulars the duties of the three residents remain unchanged.

New Publications

On the question of how to save the fur seals the *Review of Reviews* for May takes the ground that President Jordan's recommendations should be heeded at once, and that without waiting for England's sanction the United States should absolutely prohibit American citizens from engaging at any season of the year in the taking of seals in the open sea. The *Review* also urges that, if other means fail to make pelagic sealing unprofitable, all the young female seals on the Pribilof Islands should be branded in such a manner as to make their fur valueless. The females being thus protected, the herd would maintain itself.

BOOKS RECEIVED.

DISEASES OF THE EAR, NOSE, AND THROAT, AND THEIR ACCESSORY CAVITIES. A Condensed Text-book. By Seth Scott Bishop, M.D., LL.D. Illustrated with One Hundred Colored Lithographs and One Hundred and Sixty-Eight Additional Illustrations. 8vo, pp. 496. The F. A. Davis Company, Philadelphia, New York, and Chicago. 1897.

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CONVULSIONS IN INFANTS AND CHILDREN.

BY J. MADISON TAYLOR, A.M., M.D.

Professor of Diseases of Childhood, Philadelphia Polyclinic, Neurologist to the Howard Hospital, etc.

CONVULSIONS (*Eclampsia*) are not to be looked upon as a distinct disease, but a symptom of many morbid states affecting diverse tissues and organs, and consist of a series of involuntary alternating contractions and relaxations of certain muscles, paroxysmally, and sometimes, when severe, accompanied by partial or complete loss of consciousness. They may be the direct cause of death, or merely the terminal phenomena.

When convulsive seizures are repeated at more or less regular intervals the disorder is called epilepsy, but this again is merely symptomatic of varying pathologic states.

Instances of eclampsia are of such gravity and importance that they demand always careful consideration as to their point of origin, causation, nature and treatment.

Convulsions are especially common in infancy and early childhood, evidencing cellular disturbances in nerve centers, and are regarded as similar to, or replacing delirium, or merely the prodromic chills in adults. They may occur at any age, but when after the second year are of more serious import.

Origin. Convulsions, local or general, arise in excessive and irregular discharges of nerve centers in the cortex or base of the brain. Nothnagel suggests a convulsive center in the cerebrum.

The seat of discharge in convulsions is presumably in the ganglion cells of the brain, and the molecular disturbance in these cells

necessary to the morbid discharge is determined either by direct irritation of those centers, or reflexly. The phenomena have to do with exaltation of the lower centers or loss of inhibition in the higher centers, or both.

Causes. Infants have their nervous systems in process of rapid development, only the component but undifferentiated parts of which are in great activity, ready to receive, and re-energize limitless new impressions. This may be done systematically and wholesomely or irregularly and excessively, resulting in growth and development or explosively producing harm.

At birth, the lower centers only are developed, hence control is limited until the higher centers become competent to exert inhibition. In the earlier months of life, convulsions are common, less so after two years of age.

It is rare, perhaps impossible, for a healthy child to suffer from convulsions, unless the exciting cause be overwhelming, such as trauma, an intense irritant, or poison.

Convulsions readily occur in children of unstable nervous equilibrium. This alarming condition may arise from inheritance, or become acquired, and is of very varying degree. One convulsion predisposes to another and the habit may become fixed.

Some families are especially prone to motor excitements or offer but feeble resistance to excitants, be these physical or psychic. Again, individuals vary from time to time and are rendered susceptible by depressing

causes, nutritional and emotional, as well as by definite disease.

Exciting causes are chiefly reflex from peripheral irritations inducing over-activity in convulsive centers. The history of many of these must be received with caution since deeper causes can usually be found where careful search is made, more probably several causes acting together: vaso-motor instability, temporary or prolonged, states of anemia, variations in blood supply and quality, along with certain special nerve irritations as that of the fifth or gastro-intestinal supply.

Determining causes are such as disordered dentition (fifth nerve) or the visceral sensory distribution (gastro-intestinal), the various infections, especially whooping-cough and other poisons, both ptomaines and leucomaines, uremia, malaria, heat, febrile states, burns, cold, fatigue and depressing influences, blood loss, shock, emotions, fright, anger, etc. Convulsions are also due, and these the more serious ones, to various forms of cerebral disease, hemorrhage, internal pressure as from rapidly increasing hydrocephalus or abscess and emboli and thromboses.

Symptoms. Almost any one of moderate intelligence will readily recognize a well-marked convulsion or even a convulsive tendency, but it is of the utmost importance that the first observer shall carefully note and be able to relate accurately the starting point and phenomena of progress, the degree of severity, and the length of time it has persisted. On these facts will depend a proper diagnosis of the character and seat of the irritation. The slightest twitching of the thumb may indicate irritation or disease near the thumb center. So, of twitchings of the eyelid, or movements in and around the corners of the mouth. Unilateral convulsions, however, do not necessarily indicate a local lesion. There is usually some prodromal symptom more or less brief, such as the slight twitchings alluded to in the muscles of the extremities or face, a general restlessness, and startings

upon slight irritation from touch or noises. Immediately before the convulsion there is often pallor, a fixity of the eyes, or they may be rolled up into their orbits; these slight, isolated movements may pass into convulsive twitchings, extending rapidly over the entire body, or shifting from one side to another, or from one limb to the opposite one along with, or alternating with, movements in the face or head, retraction of the head, or rolling of the body over to one side or the other. A succession of grimaces due to contraction of the facial muscles may be the only change seen, or later the hands may be clenched, the thumbs being buried in the palms, the great toe extended downward, or these again may be followed by a general commotion, frothing at the mouth, disturbed respiration and pulse, slow or rapid, usually irregular, sweating of the forehead, and blueness of the lips and face. The sphincters may become relaxed, urine and feces being passed involuntarily. After the fit there is usually evidence of prostration, and temporary palsies not infrequently follow, due to exhaustion of the nerve centers. One attack of convulsion is commonly followed by others, exhibiting an increasing susceptibility. Convulsions coming on in a child previously well point to some acute disease of exceptional severity, or possibly acute meningitis. Convulsions occurring in most forms of brain disease are not usually accompanied by marked temperature rises, but are liable to exhibit pupillary changes, strabismus, rigidity, or localized palsies.

Prognosis.—In estimating the dangers resulting from convulsions it is necessary to consider the nature and extent of the cause. In children of a markedly unstable nervous equilibrium a convulsion may mean little or nothing. Moreover, convulsions occurring in young infants are of small import. Fits appearing as prodromes of acute febrile diseases are rarely serious and may not even indicate an unusually severe attack of the disease. Those points on which one is likely

to base a serious prognosis are extremely prolonged or frequently recurring convulsions, also profound disturbance of the circulation, stupor, or subsequent prostration.

Treatment.—Convulsions from whatsoever cause require prompt and efficient treatment. They themselves may produce serious damage accompanied as they are by hyperemia of the brain, more or less asphyxia, congestion of the lungs and of the various internal organs, thus throwing a great strain upon the heart, its valves and upon the capillary vessels, and profoundly exciting the nerve centers. This tremendous disturbance may go on if unrelieved and result in death. The general plan of treatment now to be outlined will do no harm and probably relieve most of the commoner causes which induce the motor excitement. When a physician is called to attend a child in convulsions he should set out instantly and be prepared to remain as long as may be necessary. He should have ready to his hand certain articles enumerated below or send for them while on his way to the case, making sure that they arrive promptly. A good plan is to send the father or other person most alarmed or least useful. The articles required are a bottle of chloroform, or ether, (or the mixture we use in whooping-cough, amyl nitrite 1 dram, chloroform 3 drams, ether 5 drams;) also a bottle containing a solution of chloral 5 grains to the dram, a cylinder of oxygen, a hypodermic syringe, morphin, a soft rubber catheter, a fountain syringe, a clinical thermometer, a bath thermometer, and three or four rolls of cotton wool.

On reaching the scene of action let him direct each of the bystanders to get various objects which may be needed, sending one person after each and thus clear the room; collecting blankets, sheets, large towels, preferably bath towels, mustard, hot water, a bath thermometer, etc.

The child will usually be found already in a bath, which is often so hot as to injure the skin, producing sometimes quite serious

results among panic-stricken folk. Take it out at once. If the bath contain mustard it may be so strong as to require rinsing off, and the application of some emollient, as petrolatum, and to wrap the child up in soft cotton wool, which in any event is a useful covering after the bath. If the child has not been over-treated by domestic zeal and remedies, proceed to apply a hot pack at once, to which a little added mustard is useful, a teaspoonful to the quart of tepid water, 75° or 80°, in which dip a large bath towel or sheet and wrap around the child, covering it with a blanket, and leave it thus for from ten to twenty minutes. Meanwhile apply the chloroform or ether to the nose, and give a large injection of hot water, 95° or 100°, to the bowel. While the child is thus resting one can proceed to examine into the history of the case, and explore the lungs and heart, and when possible get specimens of urine and examine for albumin. Look into the nose or ears for foreign body, etc. Examine the penis for phimosis. The temperature should be taken also; if subnormal use stimulants. The hot injection acts well, helping to relieve the over-taxed heart to equalize the circulation, dilate the peripheral vessels and also assists in unloading the bowels and intestines, or at any rate in liquefying the feces. If the temperature be found high, the heat will relieve capillary congestion, relaxing the superficial vessels and expedite heat elimination. The hot injection can be followed later by cold injections, 70° or 55°. Also in hyperpyrexia, and indeed in most cases except shock, it is well to apply cold to the head. If the convulsion be very excessive or unduly prolonged, there need be no hesitation in using a hypodermic of morphin to a six-months-old baby $\frac{1}{8}$ grain, to a babe of one year old $\frac{1}{4}$, or two years $\frac{1}{2}$, and these may be repeated in an hour or two if no effect is gained. The second dose may be double the size of the first, for during convulsions the tolerance of opium is very

great. Where there is asphyxia, oxygen is a valuable agent. Also, chloral may be given by the rectum in warm water or milk, four grains to a six months-old baby, six grains to one of a year, and repeated in an hour.

Gradually a knowledge can be acquired of what the definite cause may be, whether shock, fright, chill, heat exhaustion, sunstroke, congestion of the lungs, toxemia, over-loaded intestines, the beginning of an exanthem, or other fever, or cerebral disease.

It is proper also in most cases to administer a purgative by the mouth, as calomel, or if the constipation be obstinate, croton oil, a half a drop to a drop in glycerin or whisky. We have seen this save life when the cause was coarse, undigested food partaken of three days previously, and the child had been abandoned to die. If the temperature remains excessively high, a cold pack may be used after the hot one, and whatever other remedies the nature of the case may require. A child who has had convulsions, especially if these exhibit a tendency to recur, must be kept absolutely quiet and fed

in the simplest fashion, altogether by fluids, for several days. When the nature of the case is clearly revealed, one proceeds to treat that as required.

TABLE OF INFANTILE CONVULSIONS (from T. M. Rotch.)

<i>Central.</i>	<i>Peripheral (Reflex).</i>
(1) Diseases of high temperature: (Insolation, meningitis, the exanthemata, pneumonia, and others.)	Rachitis. Food. Intestinal parasites. Dental irritation. Foreign bodies in the ear and nose.
(2) Diseases accompanied by vascular stasis: (Pertussis, cardiac diseases, tumors, hydrocephalus.)	Hot baths. Mental disturbances, such as fright and numerous other causes.
(3) Diseases characterized by anemia and exhaustion: (Loss of blood, diarrhea.)	
(4) Various toxic causes such as drugs or uremia: (Belladonna, nephritis.)	
(5) Organic central lesions: (Cerebral paralysis, or any other lesions of the brain.)	
(6) Presumably organic disturbance of the brain: (Epilepsy.)	

REPORT OF A CASE OF LACERATION THROUGH THE SPHINCTER ANI, WITH REMARKS ON SUITS FOR MALPRACTICE.¹

BY MORDECAI PRICE, M.D., Philadelphia.

THE accident of the burn in the case about to be reported presents some of those medico-legal phases in which, as general practitioners or surgeons, we are all interested. Reasoning from common-sense principles, that common sense upon which it is claimed all law is based, medical men are only responsible for those accidents preventable by reasonable or ordinary skill, care and diligence. We are certainly, by no principle of common justice, legally responsible, either criminally or civilly, for those accidents over which we have no control, or those the sequence of troubles, constitutional it may be, independent of those we surgically or medically correct or attempt to correct. Every self-respecting, conscientious physician expects to be held responsible for his results

when they come within the limits of his control. This fact in itself puts him upon his best conduct, prompts the use of the best at the command of science, skill and the lessons of experience. The motives prompting these prosecutions, all the attendant incidents, have been and are more now than ever before, very closely analyzed by courts and juries, the animus, the mercenary motives at the bottom of them are judicially considered. It is very rare, indeed, that a physician, reputable with the members of his profession and in the community, is guilty in any case of wilful maltreatment. He knows that such guilt, apart from criminal or civil liability, would shut the doors of every honorable professional man against him, and close to him all avenues of legitimate and honorable

¹ Read before the Philadelphia County Medical Society, April 14, 1897.

practice. If fear of the law constituted no element of restraint in the matter, self-respect and self-interest would.

From the fact of the keen scrutiny of judges and juries into these cases not one in ten of the prosecutions for malpractice against regular and reputable physicians succeeds. Yet there seems to be no avenue of escape from these vexatious, annoying, malignant and mercenary suits.

The suit instituted in the case of which I shall speak was evidently not thought of until after a bill for professional services had been rendered and payment demanded. The patient from the date of leaving the hospital seemed perfectly satisfied with what had been done for her, at no time complaining with any special reference to the accident or to her general treatment. I would here suggest as the best possible safeguard against these suits that the surgeon receive his fee at the time of rendering his services. I have tried this rule and find it to work admirably. Having paid for services seems to have a very soothing effect upon the patient, whose general rest seems thus to be improved and who carries around with her less temptations for the lawyers.

The trouble growing out of the burn in the case about to be reported resulted from several causes, presenting unique phases from a medico-legal standpoint. The woman had been in a helpless condition for twenty-eight years from loss of control of the bowel, broken-down health from confinement in the house owing to this cause. Her troubles were further aggravated by varicose ulceration and congestion of the limb, having had a number of open sores which it was very difficult to heal. The operation was a long one, and the surgical work was tedious. There were really two procedures: one for the removal of an epithelioma at the mouth of the bladder and the control of the ensuing hemorrhage required considerable time. The closure of the tear in the sphincter required twenty-three stitches. The two procedures occupied more than an hour for their completion, so that the anesthesia was a long one. The patient was severely shocked when placed in bed. Her age, about sixty years, was also a factor to be considered. Hot applications protected by flannel at such a temperature as could be borne with comfort by the cheek of the nurse were made. Notwithstanding all precautions the

patient was blistered on the inner side of the foot, and the burn was some three months in healing. Some one has recently written an article calling attention to the fact that a patient reacting from ether-anesthesia will suffer a burn or a blister from a much lower temperature than one who has not taken an anesthetic. I am not able to confirm this statement from my own experience, but I am constrained to believe that this is correct.

The second of my experiences was a suit by a man who had been suffering from influenza and who was unquestionably insane. To care for him I demanded that the family employ a competent nurse or have him placed in a hospital to prevent his doing harm to himself, his family or his neighbors. They demanded a consultation, and Dr. F. X. Dercum saw the patient on the night of the same day I had informed the family of his condition. I was unable to meet the doctor, but he wrote me immediately, saying that if I did not have the patient removed at once he might kill somebody. I had given him a prescription for seven and one-half grains of chloral and an equal quantity of potassium bromid in a teaspoonful of the sirup of red orange. In this suit for malpractice, the family fixed their claim for damages at five thousand dollars. This case remained on the docket for ten years. It could not be forced to trial, and was at last dismissed, the plaintiff paying all costs and my bill in full for personal services, with interest from the date of its rendering.

The damage to the physician in these cases is not in a moral and professional way. In that direction rarely are they to any extent damaging; but they vex, take his time, the time to which his patients are entitled, break in on his business and necessitate the expenditure of some money in the preparation of his defence. These facts are well known to the class of patients who bring these suits and the class of lawyers who encourage them. The lawyer takes them on contingent fee—"Nothing if I can get nothing out of the doctor, and if I get anything about all I do get." He anticipates the terror of the doctor at being sued, and that he will pay liberally to escape being taken into court. Every case compromised encourages such annoying and time-wasting litigation, and is an injustice to the profession. Such a case should under no circumstances be compromised—not a

penny for a tribute, but all we have for self-defence.

COMPLETE LACERATION OF THE PERINEUM.
—Dr. Hinkle asked me to see Mrs. Y., with him in consultation on October 1, 1894, with a view to an operation for the removal of a bleeding growth at the mouth of the urethra. It was as large as a hulled walnut, and gave her great pain and annoyance, with a constant discharge of blood and pus. This condition had been produced by the constant use of bandages and cloths applied to the parts to prevent the intestinal discharges from soiling her clothing while sitting or walking. Examination disclosed the fact that the perineum had been torn through into the bowel for a distance of two inches. This occurred some thirty years before, when she was delivered of her only child. The growth presented all the appearance of malignancy, and to remove it and leave the cause would have been to insure its return. The woman was told that to prevent its return there would have to be an effort made to close the rent in the bowel so as to protect the mouth of the bladder. Dr. Thos. S. K. Morton had previously closed a vesico-vaginal fistula.

Up to this time the patient had refused any other operative interference, and would not now have consented had it not been for the condition of the growth. She stated that if both operations could be done at the same time, she would consent, as she was unwilling to take the ether twice. I agreed to take her into the hospital, and on December 10, 1894, she entered and was prepared for the operation, which was done two days later.

The patient was a large woman, and the parts were greatly swollen and irritated by the discharges from both the bowel and the malignant growth at the mouth of the bladder. The changes in the parts made the operation a difficult one. The tumor had to be removed first and then closure effected of the septum that separated the vagina from the bowel. This was done by cutting away all thickened mucous membrane over the parts that were united before the accident at child-birth, then closing from one inch above the top of the rent in the vagina and bowel, and continuing the stitches down to the outlet of the bowel, and finally exposing the ends of the sphincter

muscle, and re-uniting them after thirty years separation and non-use. The closure required the use of twenty-three stitches. From non-use and atrophy of the muscle the mucous membrane protruded over the sphincter for about one inch and a half. To insure union, this prolapsed portion should have been removed, but to do so would have been to prolong the operation to a dangerous degree, in the greatly debilitated patient, and one already greatly shocked from the ether and amount of work done. It is to be remembered that the woman had been a confirmed invalid during the entire period from the birth of her child to the time of the operation. When I first examined her, she told me that she could not go out without liability of discharges from the bowel soiling her clothing before she could get off her front steps.

The operation was a greater success than we could reasonably have expected in a patient in such poor condition for so many years, and with the added complication of prolapse of the bowel. At the time she left the hospital she had a small fistulous opening near the bowel, from the giving way of one of the stitches. Her nervous system was so broken down that it was with the greatest difficulty that I could get her to let me remove the stitches, and then only one or two at a time. She would shake the bed from fear, even before anything was done.

After the operation, when the patient was placed in bed, she was greatly shocked. Warm blankets and hot bottles were applied, as in all other cases of danger from shock. From one of the bottles she received a blister on the right foot, under and a little to the front of the joint. This burn was so slight that had the patient been in good condition, it would have healed in a very few days, but she had been suffering for years with varicose veins of both legs, with ulceration at times, that would not heal until the patient's condition was improved by treatment.

After the patient returned home I examined her, at the request of Dr. Hinkle, as he thought the malignant growth threatened to return. I found the fistula almost closed and leaking but little, and the sore foot healing nicely. The latter was completely well on March 1, 1895, as the patient informed Dr. Hinkle at the time. The fistula closed *before the burn healed.*

THE PHILADELPHIA POLYCLINIC

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PHILADELPHIA, MAY 15, 1897

A NEW VARIETY OF TUBERCULIN.

In an admirably judicial and dispassionate manner, Koch (*Deutsche Medicinische Wochenschrift*, April 1, 1897, p. 209) reviews concisely the successive steps that he has followed in the last seven years in his endeavors to remove from tuberculin those elements upon which depend the unpleasant effects attendant upon the use of that therapeutic agent. He makes a distinction between immunity to bacterial infection and that to the toxic products of bacterial activity, either variety of which it is obvious is but partial. He endeavored to secure complete immunity, bacillary and toxic, through the absorption and dissemination of both living and dead tubercle-bacilli, but was unsuccessful. Next he treated the bacilli with dilute mineral acids, or strong alkalies at boiling temperature, but while the bacilli were absorbed without detriment, immunity was not conferred.

The soluble substances extracted from tubercle-bacilli by the action of glycerin, and constituting tuberculin, confer only immunity to intoxication. By treating the bacilli for three days at room temperature with one-tenth normal sodium hydroxid and

filtering, a fluid was obtained that manifested the reactions of tuberculin, and on account of its alkalinity, was designated as TA. Each reaction, however, was of longer duration, and they were repeated over a more protracted period, while the results were more nearly constant. Larger doses were followed by the development of abscesses, which were found to be sterile. When the fluid was filtered through porcelain, and all bacteria carefully removed, suppuration no longer took place, but at the same time the preparation lost some of its activity and its permanence.

By treating the bacilli with mineral acids and strong alkalies, it was found that two chemically substances could be isolated, the one of which was soluble in dilute alcohol and saponifiable with sodium hydroxid; the other was soluble only in boiling absolute alcohol or ether, and saponifiable only with difficulty. Both of these took the specific stain for tubercle-bacilli. The endeavor was now made to isolate these substances and study their effects.

Well-dried virulent cultures of tubercle-bacilli were carefully rubbed up in an agate mortar, with an agate pestle, for a long time. Distilled water was added, and the mixture thoroughly centrifugated. In the upper portion of the centrifugated tube there collected a whitish, opalescent, but clear fluid, free from tubercle-bacilli, and in the lower portion, a layer of viscid sediment. The latter was dried, carefully rubbed up, water added, and again centrifugated. There now resulted a clear upper layer and a dense sediment. This process was repeated successively until nothing was thrown to the bottom but various impurities.

The first clear fluid obtained differed from all the rest, which were pretty much alike. The former is designated TO and the remainder TR. This latter proved to be free from tubercle-bacilli, easily absorbable and

incapable of causing suppuration. It was further found that TO and TR differed in their reaction to stains, and that while TO remained unchanged upon the addition of 50 per cent. glycerin, a precipitate was thrown down from TR. Thus TO contains, like tuberculin, substances soluble in glycerin, while TR contains those insoluble in glycerin. Further TO yielded reactions similar to those of tuberculin and TA, except for the formation of abscesses. The immunity conferred was beside slight. TR on the other hand exercised a distinctly immunizing influence. Large doses caused reaction in tuberculous animals and human beings, but the activity of the preparation bore no relation to the intensity of this reaction. By the use of small doses, however, all reaction can be avoided and then immunity should be secured as rapidly as possible by increasing the dosage. When immunity to TR has been established no reaction can be induced with tuberculin, TA or TO.

It is to be borne in mind that tubercle-bacilli present great variations in virulence and it is essential in the preparation of active TR to employ fresh cultures. These are dried in a vacuum exsiccator and all chemical influences are to be avoided. The cultures and the finished product are to be protected from light. The utmost of care is necessarily to be exercised in the production of this new variety of tuberculin by the method outlined, as it is obvious that the danger of infection is very considerable. The preparation is preserved in 20 per cent. glycerin. Each cu. cm. contains 10 mg. of solid substance, and the fluid is to be diluted with physiologic salt-solution. The initial dose to be employed is $\frac{1}{100}$ mg. and if there be reaction even less should be employed. The injection is to be repeated every second day and the dose is to be gradually increased. Temperature-elevations greater than half a

degree are to be avoided. As a rule, doses of 20 mg. may be reached before immunity is conferred. When all reaction ceases the remedy is to be withheld or to be used only at long intervals.

To immunize healthy animals larger doses are required than can be employed in the treatment of infected ones. In guinea-pigs complete immunity appeared to be developed after two or three weeks of treatment. To be effective, when tuberculosis already exists, treatment must be instituted early and pushed with expedition. In cases in which the disease is advanced little or nothing can be hoped for from the treatment. The use of the modified tuberculin has of course no influence upon the secondary infections, which play so important a part in the late history of cases of pulmonary tuberculosis. For the present Koch maintains that the use of TR represents the best method treating tuberculosis at the command of the clinician, although he admits the possibility that in the future equally good results may be secured from the use of the sera of animals made artificially immune by its aid.

A. A. E.

Editorial Note

Dr. Charles E. Sajous.—The editorial departments of the *Annual of the Universal Medical Sciences* and the *Universal Medical Journal* will be transferred to Philadelphia in May. The address will be 2043 Walnut Street, Philadelphia. Dr. Sajous' colleagues and friends will be glad to welcome him back to America. As we go to press we learn that Dr. Sajous has been appointed Professor of Laryngology and Dean of the Faculty of the Medico-Chirurgical College, of Philadelphia. This is the first college in the country to establish the chair of Laryngology upon full equality with the other chairs in the faculty.

In the Clinics

Under the Editorial Charge of DR. OAKLEY W. HERMANCE.

DR. ESHNER showed the class a man in whom, while under active *mercurial* treatment for secondary *syphilis*, there developed a *gumma of the iris*, which slowly but progressively disappeared upon the administration of large and increasing doses of *potassium iodid* in saturated solution, as advised by Dr. de Schweinitz.

* *

IN speaking of *pruritus* of the anal region Dr. Cantrell remarked that he had often found excellent results to follow the use of a 3 per cent. solution of caustic potassa in water. In using this method it was found advisable to apply it as often as once a day in the most severe cases, or once, twice, or thrice a week in the milder ones. The after-dressing consisted in the application of a piece of absorbent cotton between the folds of the region.

* *

DR. VEASEY recently called attention to the fact that, in cases of *episcleritis* resisting the usual methods of internal and local medication, much benefit was sometimes obtained by the application of *galvanism* to the affected eye. The positive pole is placed over the closed lid, the negative pole behind the ear or on the back of the neck, and the quantity given is about two milliamperes. At first a daily *séance* should be held, lasting from three to five minutes, the time between the applications to be increased and the duration of successive applications lengthened.

Society Proceedings

NEW YORK ACADEMY OF MEDICINE.

Section in Orthopedic Surgery.

Meeting of April 16, 1897.

THE NON-CUTTING OR UNBLOODY OPERATION OF LORENZ FOR THE RE-POSITION OF CONGENITAL DISLOCATION OF THE HIP.

THIS paper, by DR. G. R. ELLIOTT, was chiefly a description of the different steps

of the procedure: (1) The reduction, or bringing the head to the level of the acetabulum. (2) Re-position, or wedging the head into the acetabulum. (3) The formation of a solid acetabulum by manipulation and allowing the child to walk about with the thigh fixed by plaster of Paris at about ninety degrees of abduction. The three steps of the operation were performed under chloroform on a patient, a boy 22 months old, by Dr. Elliott before the members of the Section.

DR. T. H. MYERS reported the successful performance on a similar patient, 3½ years old, of Paci's method of manipulation, viz.: forced extension, flexion and then strong traction downward. There were telescoping, lardosis and all the other signs of dislocation, and one-half inch of shortening. A good deal of force was used in order to cause inflammatory adhesion. The limb was immobilized at thirty degrees of abduction, the spica was changed several times in the following six months and the girl was then allowed to go about with a walking brace and a high shoe on the sound side. She walked with a splint walk when the apparatus was removed. The limbs remain at a nearly equal length.

DR. W. R. TOWNSEND said it would be a great advance if these cases could be cured without a cutting operation. In his experience and observation open methods had proved unsatisfactory. The patients continue to walk lame and dislocation is liable to recur. He thought the superiority of the new methods could not be taken for granted at once. He had treated one patient by the Paci method.

DR. R. H. SAYRE had seen but one patient in whom the hip could be distinctly reduced by Bigelow's manipulation, but he had not been allowed to operate. In this case it was necessary to abduct the limb much more than had been done in the patient treated this evening. He had not achieved brilliant success by operating. In one case after the child had been walking for six months an abscess developed in or near the joint.

DR. R. WHITMAN had operated four times by Lorenz's method and had seen great advantage from the application of twenty-five or thirty pounds of traction for three weeks before the reduction. It facilitates bringing

the head down to the level of the acetabulum which at times requires a great deal of force.

DR. H. L. TAYLOR also thought these patients should have extreme forcible traction before the operation, in order to overcome more thoroughly the muscular contraction. Operative treatment had not been so far very encouraging and he believed that this procedure held out a good prospect.

DR. WHITMAN said that a point in its favor was that mothers would consent to it when they would not consent to a cutting operation. Moreover it did not confine the patient in a hospital or even in bed.

DR. ELLIOTT said Paci's and Lorenz's procedures were entirely distinct. Paci aimed to build up a nearthrosis in the vicinity of the joint. Frequently the head did not pass into the acetabulum. His manipulations were first flexion to the physiological limit, then abduction, then lateral rotation and slow extension, then plaster of Paris for three months and then careful walking with an apparatus. In this original procedure of Lorenz, however, if entrance of the head was not obtained he deemed the case a failure. It was this re-position plus loading the weight of the body on the bone which made the operation. The acetabulum was there, but rudimentary. The parts immediately began to develop when the bone was replaced. The presence of the bone stimulates the growth which had been absent. The force required in traction was sometimes great.

ACHILLO-BURSITIS ANTERIOR.

In a paper on this subject DR. S. LLOYD stated that the affection was the result of traumatism from tight shoes, shoes wearing the heel, bicycle riding, jumping and fractures; or the result of septic, tubercular, gonorrheal or rheumatic infection. The symptoms were pain under the tendo-Achillis on standing and walking and in the plantar region, swelling on the outer side of the tendon, hyperidrosis and extensive inflammation of the surrounding tissues. In the treatment, cold and warm baths, the application of tincture of iodine and mercurialunctions were useless. Traumatic cases required prolonged rest and pressure, and cases having their origin in infection should be treated by incision, curetting and drainage.

DR. WHITMAN presented a case of this affection in a woman of 35 years who was on her feet from 6 A.M. till 8 P.M. The symptoms, of one month's duration, had been pain in the heel and in the metatarsal joints and on pressure of the os calcis. There was slight thickening. He said these cases often became chronic and acquired weakness of the arch, or flat-foot. Rest should be enforced. Acute cases required a plaster of Paris bandage and chronic ones a brace to arrest the function of the joint.

DR. SAYRE had seen cases among athletes, especially hurdle racers, who in making a leap landed on their toes.

DR. MYERS had personally suffered an attack of this kind after a long bicycle ride. He could only walk with ease by everting the foot. In plaster the foot should be placed at right angles to prevent the trouble from becoming chronic.

DR. V. P. GIBNEY said that before the pathology was clear these cases used to be called rheumatism of the heel. The region of the tendo-Achillis had not been clinically explored. A counterpart is found in the advance in our knowledge which enables us to recognize scurvy in the swelling of joints in children who were called rheumatic.

Correspondence

KINSTON, N. C., May 1, 1897.

A GRANDMOTHER AT TWENTY-SIX YEARS.

To the Editor of the Philadelphia Polyclinic.

Elizabeth S., a native of Wayne County, N. C., bore an illegitimate daughter in May and reached her thirteenth birthday the following June. The daughter, Ann, menstruated at eleven years, was married at twelve, and bore a son in April, becoming thirteen years old in May. The labor was tedious and difficult. Ann grew four inches taller after bearing this child, and has borne seven children since. She is in fair health and does not show any signs of premature age. Who can beat this record?

H. O. HYATT, M.D.

If you like THE PHILADELPHIA POLYCLINIC tell your neighbor and colleague about it. He would benefit by it too.

THE PHILADELPHIA POLYCLINIC

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MAY 22, 1897

ON THE MANUFACTURE OF OTHER GALENICAL PREPARATIONS FROM FLUID EXTRACTS.

BY LYMAN F. KEBLER, Chemist, Philadelphia.

At the December meeting of the Philadelphia College of Pharmacy, the writer desired to get an expression from the members present on the practice of manufacturing other galenical preparations from fluid extracts. On account of lack of time, the question was referred to the January meeting for discussion. Since the December meeting there appeared an article in the PHILADELPHIA POLYCLINIC, January 2d, page 1, entitled "Pharmacopœial Preparations of Digitalis," by J. W. England, Ph.G. In this contribution the query, "Will the commercial fluid extract of digitalis, on dilution with alcohol and water, and with water, yield a tincture or an infusion that is equal in therapeutic worth to the officially made preparations?" is answered in the negative.

Before going into the merits and demerits of the question in hand, the writer desires to take up several points made in the above article. First: the *detrimental action* of the heat employed in manufacturing the fluid extract. If the U. S. P. method, in the body of the text, for preparing the fluid extract is used, the therapeutic value of the fluid extract may be very different from that possessed by a fluid extract made, as the large manufacturer generally does, by the cold repercolation process, which is also official, and thus eliminates the question of heat effect entirely. Out of 400 different fluid extracts made by a single house, in this

city, heat is employed in two cases only. The *heat argument* of the above paper, therefore falls to the ground.

The second point is, German leaf *versus* English leaf. The Pharmacopœia does not direct that any special leaf except "second year's growth" should be employed in making the preparations of digitalis. The statement made by a physician that the German leaf has been proven inert, is certainly to be taken *cum grano salis*. In fact, the writer has ample evidence to the contrary. Mr. England says: "He (the average druggist) generally makes the tincture himself from the selected leaf, and often from the English cultivated leaf." The English leaf we are credibly informed, is in many instances nothing but German leaf packed in English containers. On inquiry the writer also learned that one wholesale house sold, last year, 25 pounds of English leaf against about 1500 pounds of the German leaf. Another wholesaler informed him that they sold about one pound of the English leaf to 25 pounds of the German leaf. The extent to which the retailer uses the English leaf is very apparent. If the wholesale houses handle such small quantities of the English leaf, where does the average druggist secure his supplies?

The third point is on the chemistry of Digitalis purpurea. The author of the above contribution thinks that chemists are generally agreed that the active constituents

of digitalis leaf are as follows: "Schmiedeberg's *digitalin*,¹ almost insoluble in water; *digitoxin*, wholly insoluble in water; and *digitonin* and *digitalëin*, both freely soluble in water." Mr. England evidently bases the above statement on the work of O. Schmiedeberg² and the exhaustive investigations of H. Kiliani,³ for they are quoted as authority. Kiliani's investigations have extended over a period of nearly eight years, and they show that Schmiedeberg's active principles were in several instances impure products. Kiliani's extended and thorough investigations of this question to-day stand without a rival. Mr. Kiliani emphasizes the fact that digitalis leaves contain neither *digitonin* nor *digitalin*, but the glucoside *digitoxin*. The glucosides *digitalin* and *digitonin* are found in the seeds. Again, *digitonin* is very insoluble in water, and the existence of *digitalëin* is extremely doubtful. More might be said along this line, but it is enough to show what the chemistry of *Digitalis purpurea* is up to date. Some one may say, "there is a difference of opinion. When the doctors disagree who is going to decide?" The writer has looked up the question thoroughly, and is convinced that any chemist who reads the single communication of Schmiedeberg made in 1874, and compares it with the exhaustive researches of Kiliani during the past eight years, will not be long in giving his verdict for the latter. So confident is the writer on this point, that he would be glad to open the question to any number of chemists for ultimate adjustment.

The last point is the standardization of digitalis preparations. Mr. England⁴ is the

only person, to the writer's knowledge, who has put himself on record in scientific literature favoring such a procedure. After speaking of the infusion of digitalis at length, he says: "In the absence of standardization the best method would be to ascertain the amount of solids, active and inactive, dissolved." Three years later⁵ he says of the same subject: "My experiments have led me to modify the original formula, but none of the then expressed views." The 1880 U. S. P. used the same process for adjusting the strength of the tinctures of *nux vomica* and *ignatia*. In a recent article, Mr. England calls such a procedure "*Standardisation run mad.*"

This method of standardization is only of value in determining whether or not a given drug has been completely exhausted, or when the factor is adjusted by therapeutic experiments.

After taking the above points out of the article in question we still have left the conclusion, viz.: "The absurdity of hoping to get a correctly made tincture or infusion by diluting the commercial fluid extract must be apparent." Notwithstanding the fact that this conclusion is based on faulty premises, yet it is deserving of careful consideration.

In an editorial of the same number of the PHILADELPHIA POLYCLINIC, Mr. England's paper is highly commended and forms the basis of some very cogent language. In view of the facts presented above, it might be well to modify some of the statements contained in this editorial; for instance, a sentence like the following: "It is evident from the facts adduced by Mr. England, that to make a tincture by diluting a fluid extract is to make a preparation which is not properly described by the name tincture, and which, if dispensed upon a prescription calling for a tincture, will fail to give the therapeutic result desired by the physician."

¹ *Italics*, Kebler's.

² 1875, *Arch. f. exper. Pathol. und Pharmacologie* 3, 16.

³ 1890, *Ber. d. Chem. Ges.*, 23, 1555; 1891, *Ber. d. Chem. Ges.*, 24, 339 and 3951; 1892, *Arch. d. Pharm.*, 230, 251 and 261; 1893, *Ibid.*, 231, 448 and 460; 1894, *Ibid.*, 232, 234; 1895, *Ibid.*, 233, 299, 311 and 698; 1896, *J. Chem. Soc.*, 70, pt. 1, p. 58, 59 and 180; 1896, *Ibid.*, 234, 273 and 481; *J. Chem. Soc.*, 70, pt. 1, 551.

⁴ 1889, *Am. J. Pharm.*, 61, 341.

⁵ 1892, *Am. J. Pharm.*, 64, 361.

When it comes to a question of making infusions from the fluid extracts it must be admitted on the one hand that it is wrong in many cases, in the light of our present knowledge, but on the other hand it remains to be demonstrated that an infusion made from some fluid extracts is less active, therapeutically, than one made from the drug direct. In some cases an aqueous menstruum will educe active constituents that are insoluble in alcoholic solutions, and vice versa. But when we enter the field of manufacturing tinctures, and some other preparations, from the respective fluid extracts, debatable ground is invaded.

Before taking up this question, however, it is necessary to state at the outset, that if the position is taken that a U. S. P. preparation is U. S. P. only when made strictly according to the directions laid down by that authority, and cannot be made any other way, there is only a single answer to the question. But is the Pharmacopeia infallible, and is there but one means to an end? The late Prof. J. M. Maisch,* referring to the omission of processes of the 1880 U. S. P., says: "That the object was not to drive the manufacture into chemists' hands, but to leave the choice of process altogether optional, provided only that the results would come up to the standard of purity adopted."

The first question can be most expeditiously answered by other questions. Would any chemist be justified in applying the faulty Pharmacopeial method of testing bismuth or antimony compounds for arsenic or can he be expected to standardize vinegar of opium by a method that it is impossible to apply? The Pharmacopeia itself answers the second question, in a measure, in that it gives authority to prepare fluid extracts by the repercolation process, as well as by the directions laid down in the body of the text. Again, would an analyst be committing a

crime if he standardized the preparations of nux vomica by a method that is more expeditious and has been proven to be as accurate as that laid down by the Pharmacopeia, if not more so?

This brings us to the question of standardized preparations, and the manufacture of other preparations from them. The 1890 Pharmacopeia has incorporated methods for assaying the crude drugs: cinchona, nux vomica, and opium, as well as some of their preparations. The next revision undoubtedly will be enriched by methods for assaying a number of other drugs and their preparations. Why have the assay processes been introduced? On account of the great variability of the drugs. Are cinchona, nux vomica and opium the only drugs of a variable nature? Let us see. The writer on turning to his analytical record finds one bale of aconite root U.S.P. assaying 0.4 per cent. of total alkaloids, another sample contains 1.14 per cent., both chemically and physiologically; that is, one root is nearly three times as potent as the other. Now let us prepare tinctures and fluid extracts according to the Pharmacopeia from these roots and what do we have? Evidently, one tincture or fluid three times as powerful as its companion. In other words the tincture made from the high assaying root is as powerful as the fluid extract made from the root containing the smaller amount of alkaloids.

Again, one sample of coca leaf assayed 0.32 per cent. (lower data are on record), another contained 1.02 per cent. of total alkaloids; that is, one is about three times as potent as the other, and the tinctures or fluid extracts would hold the same ratio to each other, if they are well made according to the Pharmacopeia. These are not isolated cases, but similar data can be furnished for ipecac, belladonna, stramonium, physostigma, ignatia, etc.

Suppose we dismiss the question of varia-

bility of crude drugs for a moment and turn our attention to the problem of extracting the active principles from the drugs completely. Cases have come to the writer's notice again and again where only $\frac{1}{2}$, $\frac{2}{3}$, or $\frac{3}{4}$ of the active principles had been extracted from the drug operated upon. The foreman of the fluid extract department of a large wholesale house says: "The manufacture of unassayed preparations and standardized preparations are two different things. Before assaying was adopted, appearance was the only requirement, whether $\frac{1}{2}$ or $\frac{2}{3}$ of the active principles were extracted."

In view of the variableness of the drugs and the element of uncertainty introduced in manufacturing the various preparations, which is the most rational course to pursue; to make tinctures varying in strength from a very small potency to the strength of fluid extracts; and fluid extracts, solid extracts, etc., varying in the same degree, or to make preparations that are uniform in strength?

The next question is easily apprehended. What tinctures, for example, will possess the greater degree of uniformity, those made from crude drugs varying extremely in potency, or those prepared from standardized fluid extracts, etc.?

As for the non-standardizable fluid extracts being made a basis for other preparations, it must be frankly admitted that we do not know anything for or against the procedure, except, possibly, that it is neither ethical nor pharmacopeial.

No authority on therapeutics to this day claims different actions for the fluid extract and tincture. The chairman of the U. S. P., Dr. Charles Rice,⁷ who has a number of able

medical advisors associated with him says: "When fluid extracts were first suggested and introduced, the principal claim made for them was that they represented the corresponding tinctures, wines, etc., in a more concentrated form and in a smaller bulk. No one claimed for them a different therapeutic action, except, of course, that a proportionately smaller quantity of them was required to produce the same effect as a corresponding dose of the respective tinctures." Dr. G. L. Peabody says, (POLYCLINIC symposium): "If, by your question, you wish to know whether I think that the fluid extract is the practical equivalent of the others, that, of course, is another matter and, in my judgment, one that would not admit of a general reply." And Dr. Hare says: "In the case of fluid extract of *nux vomica*, I believe that a tincture made from such an extract, if assayed, is infinitely preferable to the ordinary tincture as dispensed in the shops, etc." Dr. Abel says: "A clear judgment cannot be given until the most used tinctures, prepared in the present official way, are compared with such as have been prepared by simply diluting the fluid extracts."

The writer very well realizes that there are two sides to this question. There is a vast field of work before us for the final adjustment of this problem. Since a number of prominent physicians have placed themselves on record as opposed to fluid-extract tinctures, it behooves the druggist, in justice to all, to follow the Pharmacopeia as closely as possible and make such fluid-extract tinctures only as are needed in emergencies, etc. This leaves us practically in the same position we were in before this controversy was started.

⁷ 1891, *Am. J. Pharm.*, 69, 99.

TREATMENT OF CYSTITIS IN THE FEMALE

BY H. C. BLOOM, M.D., Philadelphia.

IN the treatment of cystitis, if acute, put the patient to bed at once. This is the

first essential in the management of such a condition. The diet should be light, unstim-

ulating—fluid, milk, broths and eggs. Avoid all stimulants; keep the bowels freely open with salines; keep the patient warmly clad. If the urine is acid, it should be rendered neutral by alkaline drinks such as Vichy water with plenty of soda in it, as well as by any of the prescriptions mentioned in my former article.

In nearly all these cases the water is alkaline, though not as frequently in acute as in chronic cystitis. The best agent for neutralizing an alkaline urine is benzoic acid either in solution well diluted with water, or in 5 grain capsules, which are preferable, every three hours until the desired effect is obtained. Use large drafts of water after each capsule. Salol in 5 grain capsules every two hours, until the water is acid, is most valuable where there is much ammoniacal decomposition.

Boric acid 10 to 20 grains in cinnamon water every three hours soon corrects offensive urine. For pain which is often a prominent symptom there seems to be nothing better than 5 grain doses of acetanilid repeated as indicated.

Irrigation of the bladder becomes a most important adjunct in the successful management of these cases. Of course, if it is acute cystitis, not until after the acute symptoms have subsided. One of the best irrigations for this purpose is potassium permanganate in one-twelfth to one-fourth per cent. solution. Another very good one is one-half per cent. solution of acetanilid. In chronic cystitis this is one of the most valuable solutions that can be used. It can be increased in strength if found necessary.

The technic of vesical irrigation is most important. The apparatus is most simple, consisting of a soft rubber catheter joined to a piece of rubber tubing by a short piece of glass tube. A small glass funnel is connected with the other end of the rubber tube. The whole apparatus can be from 4 to 5 feet long.

Sterilization is most important before using it and immediately afterwards. Upon thorough cleanliness depends largely the successful issue of the case. *Asepsis* and *antisepsis* are as important in this operation as it would be were one about to open the abdomen. After carefully cleansing the meatus urinarius as well as its immediate surroundings, the catheter, well lubricated with sterilized vaseline, is introduced, the urine drawn off, while the instrument is still in place, and the tubing filled with the column of urine, thus preventing the entrance of air; the funnel is filled with the irrigating solution and gradually raised, distending the bladder slowly. The quantity used will depend upon the vesical irritability. Some bladders will not tolerate over an ounce. The maximum quantity should not exceed five ounces. The funnel is then lowered and the bladder evacuated in the same careful manner.

This procedure is repeated till the washings come away perfectly clear and clean. The temperature of the solution should be about 100° or 105° F.

We use this once a day at first, or at most twice a day, and after a few days lessen the frequency. Even this may fail in certain bladders to cure the trouble; then one will have recourse to drainage, keeping the bladder empty by a self-retaining catheter. This is proceeded to by first dilating the urethra to the point of paralyzing the vesical sphincter.

If this fails, Emmet's operation becomes necessary for draining the bladder through the formation of a vesico-vaginal fistula.

If the vesical irritability is due to caruncle, the only permanent relief is total extirpation under careful antiseptic precautions. If due to fissure, or ulcer, dilatations of urethra, curetage and the application of carbolic acid or silver nitrate, always being careful to draw the water through a sterilized catheter for several days, will meet with success.

In the treatment of gonorrheal vesical irritability nothing seems to do more good than the application of pure ichthyol to the urethra after carefully cleansing it with a solution of mercury bichlorid, and giving internally a capsule of two grains of ichthyol and five minims of oil of sandal wood every three hours, and one or the other of the prescriptions mentioned.

In chronic cystitis, it is important to look after the general health, as well as the local treatment, and if it is, as is often found, associated with a retroversion, the success will be very much greater if the uterus is restored to its normal position.

THE SURGICAL TREATMENT OF SUPPURATIVE PERICARDITIS¹.

BY JOHN B. ROBERTS, M.D., Philadelphia.

THE author advocated, as he had since 1876, the treatment of pericardial effusions in the same manner as pleural effusions; and stated that paracentesis was insufficient to cure suppurative pericarditis. Incision and drainage were essential, and should be adopted as soon as diagnosis of pus in the pericardium was made. The diagnosis of the purulent character of the effusion was only determinable by exploratory puncture. This should be done at the upper part of the left xiphoid fossa, close to the top of the angle between the seventh cartilage and the xiphoid cartilage. Pericardotomy should then be performed with resection of the fourth and fifth costal cartilages in the way described by the author. The operation was believed to be novel in some of its details, though others have recommended, and operated by, various forms of resection. This method was devised to avoid injury of the left pleura, which is nearly always a complication in the ordinary methods of

puncturing or incising the pericardium. As a rule, empyema is liable to occur as a sequel of pericardial puncture or incision in suppurative pericarditis. The prognosis is good in pericardotomy for pyo-pericardium. In a table of 26 collected cases, 10 recoveries and 16 deaths were shown. This gave a percentage of recovery of 38.4. Of the fatal cases, at least 9 were septic, and all the others who died had complicating lesions, such as pleuritis or pulmonary, cardiac or renal lesions. The operation devised by Dr. Roberts consisted in raising a trap door of the fourth and fifth costal cartilages and connecting soft parts, and using the tissues of the third interspace as a hinge. The internal mammary vessels and left pleura are thus exposed and pushed to the left so as to leave the pericardium uncovered and accessible to operation.

In the Clinics

Under the Editorial Charge of DR. OAKLEY W. HERMANCE.

WHILE speaking of *psoriasis* Dr. Cantrell asserted his firm belief in the internal treatment by oil of copaiba, feeling certain that in the dose of five minims, thrice daily, good results would accrue; but this should be increased as high as ten or even twenty minims if the smaller dose should prove insufficient.

* *

Two cases of persistent and long continued *purulent inflammation of the lachrymal sac*, subject to acute exacerbations, due primarily to stricture of the nasal duct from nasal disease, were recently successfully treated in Dr. Hansell's clinic by cutting down upon the sac, scraping its floor, dilating the duct with a large probe and packing the wound with iodoform gauze. The dressing was removed daily, the wound thoroughly cleansed with 1-3000 bichlorid solution and new gauze inserted. In two weeks after operation the fistulæ had entirely healed and the lachrymal secretion was conveyed through the natural channels. Both cases had resisted the routine treatment by probing.

¹ Read at the Meeting of The American Surgical Association, May 5, 1897.—(Abstract.)

THE PHILADELPHIA POLYCLINIC

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PHILADELPHIA, MAY 22, 1897

CONCERNING THE PREPARATION OF OTHER GALENICALS FROM FLUID EXTRACTS.

ELSEWHERE we publish a paper by Mr. Lyman F. Kebler, of Philadelphia, which apparently takes issue with the position of THE POLYCLINIC concerning the question of the preparation of other galenicals from commercial fluid extracts. We take pleasure in presenting this paper because of the scientific attainments and personal worth of the author, and because of its value as a contribution to the pharmacy of digitalis; but also because we wish to be perfectly fair in the consideration of every question, and to give both sides a full hearing. When Mr. Kebler's paper comes to be critically examined, however, it will be found that although his conclusions are at variance with ours in some particulars, in others he admits without reserve the correctness of our position; and, moreover, concerning any important point in which he differs from us, it can readily be shown that his conclusions contradict his own premises.

In the first place, Mr. Kebler, as all others who have discussed this subject in opposition to THE POLYCLINIC, confounds the question we have raised with a very different question. Our question

was, whether or not a druggist is justified in dispensing one thing when the physician prescribes another. The question discussed by Mr. Kebler and most of the drug trade journals is, whether or not the thing substituted is of equal therapeutic efficacy with the thing prescribed. We are perfectly willing to discuss both questions, but we prefer to take them "one at a time," and we decidedly object to having the issue evaded by confusing them. It may be that the articles substituted by the druggist are, in some cases, equal—perhaps superior—in therapeutic efficacy to those which the physician has prescribed; but does this justify the conduct of the druggist? We say no. All disinterested persons, we think, must agree with us. At all events, such is the overwhelming weight of professional opinion, medical and pharmaceutical, as shown by our symposium; nor does Mr. Kebler express any different opinion.

In the second place, Mr. Kebler unfortunately cites authorities to support his contention, by taking a portion of what the person cited has said and leaving out the context which materially alters the meaning. This is, perhaps, to be expected in partisan advocacy, but is hardly to be commended in scientific investigation. Thus, to the citation he takes from Dr. Abel's contribution to our symposium, he should have added, to make his author's meaning perfectly clear, the following important sentence: "Until investigation has settled our doubts, it would not be advisable for pharmacists to depart from the present authorized official methods."

From Dr. Peabody's contribution he omits the pregnant comparison as to honesty, as also these words: "Of course, if the druggist explains the situation to the intending purchaser and offers him his fluid extract openly instead of the others, at least he does not deceive; but even then the propriety of his action might be questioned." Even Dr.

Hare, who is apparently the most favorable to Mr. Kebler's position of all those quoted, says, "I do not believe it is possible to express a general rule which should govern this matter, because many fluid extracts have certain peculiarities which others lack." And still more significantly, "*If I had the choice* of employing a tincture made according to the pharmacopeial process by a druggist of limited experience and of employing a tincture made according to the directions provided by the manufacturer of a reliable fluid extract," etc.,—which is quite a different thing from justifying the druggist in assuming to determine the question against the physician's expressed choice.

The same criticism will apply to Mr. Kebler's handling of another subject, which is quite apart from the main question, and served merely to introduce it into our columns; we refer to his quotations from Mr. England's paper of 1889 on "Infusion of Digitalis." The impression the reader would gather from these partial citations is that Mr. England at that time advocated the immediate standardization of digitalis preparations. Were this so, it would be of no consequence to our argument, and of no reproach to our contributor, who has the right of all students to change a worse opinion for a better. One who reads the original paper, however, will find that Mr. England, reporting experiments on the making of infusion of digitalis, spoke of the desirability of standardization, if possible, and recognizing its impracticability in the light of present knowledge, told, as the quoted language indeed shows, what must be done "*in the absence* of standardization."

Mr. Kebler's criticism of Schmiedeberg's (and the generally accepted) opinions concerning the chemistry of digitalis, which he bases upon Killiani's researches, opens a most important subject; but one that we do not purpose to discuss in this article. Whatever conclusions may be correct in this matter,

even accepting for argument's sake Mr. Kebler's own—it does not alter the fact that official infusion of digitalis and diluted fluid extract of digitalis are pharmaceutically, and therefore therapeutically, quite different preparations. Mr. Kebler himself says: "When it comes to a question of making infusions from the fluid extracts it must be admitted on the one hand that it is wrong in many cases in the light of our present knowledge," and we presume he will include digitalis among the "many cases."

But finally, what is the proposition that Mr. Kebler, after all his citations and all his argument, and all his confusion of the issue, relies upon to overturn our position and that of our contributors, against the dispensing of dilutions of commercial fluid extracts upon prescriptions for official tinctures? That the practice all condemn has been scientifically demonstrated to be correct? That there is a consensus or even a weight of competent opinion in its favor? That it is ethically justifiable? No, but that the equal therapeutic worth of the substituted article is a "debatable question!" But if the best that can be said on his side is that the question is debatable—and there are few questions that are not—what right has the individual druggist to decide it against the explicit directions, not only of the Pharmacopeia, the recognized authority in pharmacy, but of the prescribing physician, the immediate authority in therapeutics? As our contributor well says—but in a sense different from that which he intends—"This leaves us in practically the same position that we were in before the controversy was started"—namely, that it is the duty of the druggist to obey the common law of honesty and the written law of pharmacy, and to dispense only that which the physician directs. The preparation of other galenicals from commercial fluid extracts violates these laws in 999 cases out of a thousand.

Editorial Notes

Polyclinic Appointments.—The Trustees of the Philadelphia Polyclinic and College for Graduates in Medicine have created a new Chair of Diseases of the Eye, and elected Dr. T. B. Schneideman, formerly Adjunct Professor, to fill the same.

Dr. G. Hudson Makuen, formerly Lecturer, was elected Professor of Defects of Speech.

Dr. Arthur S. Hamilton, University of Penna., and Dr. Gaston Torrance, University of Virginia, were elected residents; and Dr. Edward W. Thomas, Jefferson Medical College, and Dr. Willitts P. Haines, Jefferson Medical College, as externes.

Dr. G. E. Roos, of Scranton, having been recommended by the Faculty, after examination in all departments, was elected a Fellow of the College.

Dr. Burr's resignation of the Chair of Diseases of the Mind and Nervous System was accepted.

Dr. L. W. Steinbach has been elected Vice-President of the Faculty.

Invitation to the American Medical Association.—The Faculty of the Philadelphia Polyclinic have adopted a resolution providing "That all the Clinics, Lectures and Demonstrations of the Philadelphia Polyclinic and College for Graduates in Medicine be open to the members of the American Medical Association from May 24 to June 12, free."

Society Proceedings

THE PHILADELPHIA COUNTY MEDICAL SOCIETY.

Stated Meeting, April 14, 1897.

DR. JOSEPH PRICE presented a paper on "SOME OF THE COMMON CAUSES OF MORTALITY IN ABDOMINAL SURGERY."

To reason concerning mortality in surgical work is to consider finally its entire field and treatments. It is mortality that we combat. To speak of mortality in relation with surgical achievement is to relate the entire advantage of surgery. Such a discussion

would be impossible. We may discuss the expediency in restricted lines profitably, but an infinite labor would be involved in accurately determining a conclusion for the surgery of to-day. It lies within our power to generalize, however, upon this subject, and to infer from the many presentations of worthy co workers, together with our own personal experience, certain forceful evidences of judicious direction in operations.

Foremost among the attributes of success, I place operative skill, that is, a wise, serious, clever artisan; a good workman; a confident operator, sure and rapid; a man abundantly capable for every emergency, with a constant reserve of power and resource to meet any contingency. This simply means a painstaking scholar, whose close attention and perseverance have developed a power of performance. A professional aspirant of any stamp aims at a perfecting of his parts to his peculiar work. A runner works for every respiration during strong physical exertion. His organs must adapt themselves to his new purpose. The peculiar adaptations for which the surgeon must develop are difficult of definition. For one thing, his touch-sense must have a certainty and a delicacy, supported by an accuracy of muscular control, that would do credit to a first violinist. His intelligence and fair knowledge of his art are pre-supposed. While speaking of the surgeon himself, I would mention one other strong element in his success, that is nerve-force or vigor, which is undoubtedly essential to the successful management of an operation. He must be in a condition for a feat, must be clear, self-possessed, undisturbed by considerations foreign to his subject's immediate advantage and welfare. So very numerous and varied in form are the accidents that require the highest and most experienced surgical skill, and not a few accidents that add to our mortality are associated with, or are direct incidents of, the surgery itself; that it is of first importance that the surgeon's ability, his fertility of resource, should be the greatest of possible attainment. To the surgeon there is a fitness in Napoleon's illustration of his own resources in emergency: "There is nothing in war, which I cannot do by my own hands. If there is nobody to make gunpowder, I can manufacture it. The gun-carriages I know how to construct.

If it is necessary to make cannons at the forge, I can make them. The details of working them in battle, if it is necessary to teach, I shall teach them. In administration, it is I alone who have arranged the finances." There is something sublime in this courage, this sense of fertility of resource, this egotism, if you please. Something of it in our surgery would diminish our mortality. Timidity disturbs and unseats judgment.

Surgical courage is something other or more than temperamental, it is educated; it is a self-confidence, coming of that mastery which apprenticeship gives. It inspires and directs the doing of that which timidity shuns, appreciating possibilities, and dares when situations are desperate. The statistics of the mortality due to shirking of responsibility, to cowardice, will never be given; nor will those of ignorant, over-weaning, ill-founded confidence and rashness. Voltaire said: "One of the chief misfortunes of honest people is that they are cowardly." For the medical profession there is no *discouragement* in this statement.

The greater our success, the more dissatisfied we become with our failures; the more we feel and know that many of them should not occur, and the more disposed we are to inquire into their causes. Many credit failures to the use of a particular method, rather than to the unskillful use of the method, and they change to something to them new, with little, if any, better result; generally with an increase in their mortality.

The extent to which various causes influence mortality is impossible of determination, as we have no reliable statistical data upon which to found an opinion. All that we can venture are mere deductions of individual experience. No stronger duty presses upon us than that of search for the causes of our failures. Errors of diagnosis are a fruitful source of mischievous results. Beginning with mistake, all following is mistake or accident. Diagnosis in abdominal disorders is not always easy, as these are concealed troubles, and it is not always easy to get from the patient a full, clear and definite history. Not least among the surgeon's early difficulties is the tendency to concealment. It seems natural for people to shrink from disclosing their lives, even to the physician. This appears to imply a certain unworthiness in even having an ailment, much the more to give intimation of its suspected origin. One

is almost inclined at times to consider Hawthorne's fancies as to the relations of moral health and physical conditions entirely truthful. The tendency of all fault is to see darkness, and people seem everlastingly occupied in screening themselves from the eyes of their fellows.

We have no resource here but unflinching science. We must be able to decide without much dependence upon the patient's story. There are, of course, exceptions, cases in which the patient is entirely frank and helpful. Many of the diseases with which we have to deal, and find the most difficult to combat, have a beastly genesis, and much is concealed from very shame.

As physicians and surgeons, we know the origin of many of the gynecologic troubles for which we operate; the complications and sequelæ are always of serious concern. Unfortunately, many of the patients fill the sacred office of wife and mother. In all, and to all, we are enjoined to a sacred silence. These diseases in operative cases, increase mortality to an extent not indicated by death-certificates. The death-certificate makes no note, perpetuates no record of that which the law, in its questionable charity, passes as unindictable crime.

Outside of hospitals, general and private, the practitioner encounters unfavorable conditions, those affecting his mortality, which he cannot control, however zealous and enlightened may be his endeavors. He finds in homes and their environment, miserable hygienic conditions, and that which not infrequently goes along with such conditions, and which our science and art are powerless to correct, depraved social life.

(To be continued.)

Current Literature

Antistreptococci Serum in Surgical Operations.—Watson Cheyne (*The Practitioner*, April, 1897). Cheyne advises injections of the antistreptococci serum as a prophylaxis in surgical operations against septic pneumonia. He used it in operations about the mouth and tongue. An injection of 20 c.c.m. was made two days before and 10 c.c.m. the day before operating. In two cases, one of carcinoma of tongue, the other disease of lower jaw, there was not the usual sloughing surface, and septic complications did not follow.

M. V. B.

THE PHILADELPHIA POLYCLINIC

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TWO CASES OF MARKED AND RAPID CHANGE IN REFRACTION IN PATIENTS SUFFERING FROM GLYCOSURIA ASSOCIATED WITH VARIATION IN THE AMOUNT OF SUGAR SECRETED IN THE URINE.

BY S. D. RISLEY, M.D.

Professor of Diseases of the Eye in the Philadelphia Polyclinic and College for Graduates in Medicine;
Surgeon to Wills' Eye Hospital.

THE following cases of saccharine diabetes exhibiting remarkable changes in the refraction of the eyes associated with variation in the amount of sugar excreted with the urine seem to the writer of sufficient interest to place upon record in the annals of the society:

CASE I.—Mrs. S., aged 49, was sent to me by her physician, Dr. Ward, in November, 1882. She was the subject of glycosuria, but her physician reported that under treatment by the nitrate of uranium the sugar, which had been very abundant, the specific gravity of the urine rising at times to 1050, had entirely disappeared. She no longer suffered from thirst, and the general health had greatly improved. She complained, however, that with the improvement in her general condition her vision had grown rapidly worse so that she was not able to read or see distant objects clearly with her glasses, 2.75 D., although she had experienced no difficulty in this respect until within a few days. With her glasses V. O.D. = $\frac{1}{4}$ O.S. = $\frac{1}{4}$ and there was no range of accommodation. The optic nerves were very red, and the margins veiled, but no hemorrhage or splotches were present in the eye ground. The lenses were slightly opalescent and the nucleus was plainly outlined in both, but there were no spicules of opacity or stria of any kind. Tension was normal, and the corneæ transparent. A mydriatic was instilled and after careful determination she received for O.D.

+ 5 D. $\odot$ + 1.25^{ov} ax. 75° V. = $\frac{3}{4}$ O.S. + 6 D. + .75^{ov} ax. 105° V. = $\frac{3}{4}$

Ten days later the glycosuria had returned and she complained once more of dim vision with her glasses, which were then reduced to + 3. and 3.50 D. respectively with cylinders as before, which gave her $\frac{3}{4}$ in each eye. Accommodation was still absent. On October 31st, fifteen days later, the refraction had once more increased until she chose for O.D. + 1.25 D. $\odot$ + 1.25^{ov} ax. 75° V. = $\frac{3}{4}$ O.S. + 1.50 D. $\odot$ + .75^{ov} ax. 105° V. = $\frac{3}{4}$. The anterior chambers were shallow, the lenses strongly reflecting, but no opacity present. She remained under observation for several months with no further notable change in the ocular conditions, but her general health failed rapidly under the persistent glycosuria and the attending grave nutritional changes.

CASE II.—Mr. W. C. S., aged 74, has been suffering for at least six years from saccharine diabetes, under the professional care of Dr. James C. Wilson, of Philadelphia. During that time the specific gravity of the urine has rarely fallen below 1020 and rarely risen above 1030. His treatment has been carefully conducted, and strictly carried out by an intelligent and loyal patient.

The condition of his eyes in August, 1896, was as follows. The refraction error was corrected by

O.D. + 1.50 + 1.25^{ov} ax. 180° V. $\frac{3}{4}$ $\frac{1}{2}$

O.S. + 1.25 + 1.25^{ov} ax. 180° V. $\frac{3}{4}$.

¹ Read before the American Ophthalmological Society, at Washington, D. C., May 5, 1897.

The anterior chambers were shallow in each eye, and through the narrow pupil the eye-ground could be seen with difficulty and all details were veiled. The pupils dilated small medium only with homatropine, but sufficient to reveal spicules of opacity in the lower half of both lenses, more advanced in the left eye. The nucleus was here plainly outlined and with oblique light the lens seemed opalescent with plainly differentiated sectors. The eye-ground was very fluffy in appearance with gray white splotches here and there through the fundus, and a large semi atropic crescent or conus embracing the lower temporal border of the nerves. These conditions were present in both eyes, but more advanced in O.S., and remained with but little variation until April 9, 1897, the vision, being on that date recorded as O.D. $\frac{3}{4}$ V. $\frac{1}{2}$ O.S. $\frac{1}{2}$ V. On April 23d he complained of his dim vision and of his inability to read even large type with his reading glasses. V. = $\frac{3}{4}$ in each eye with his distant glasses. He expressed his surprise over this failing vision in view of the fact that he was so much better in all other respects. Dr. Wilson reported the specific gravity of the urine as having fallen from an average of 1026 to 1012, on one occasion being as low as 1006, and no sugar, or but a trace, present. He now selected O.D. + 2.50 $\odot$ + 1.25^{ax} ax. 180° V. $\frac{3}{4}$ V. O.S. + 2. $\odot$ + 1.25^{ax} ax. 180° V. $\frac{1}{2}$ V. There was no notable change in the fundus or lens of either eye.

On May 20th, 1897, Mr. S. returned, saying that he had been compelled to return to his old glasses within a few days as the new ones blurred his distant vision and that the reading glasses compelled him to hold his book too close to the face.

He now selected his old glass with each eye with which O.D. V. = $\frac{3}{4}$ V., O.S. V. $\frac{1}{2}$ V. There was, therefore, diminished acuity of vision and in the O.S. the lens was swollen and distinctly more opalescent. The specific gravity of the urine was 1027 and it contained 4.20 per cent. of sugar.

The probable cause for the rapid change in the refraction of the dioptric system of the eye in these two cases furnishes a most interesting inquiry, any answer to which, however, must be purely hypothetical. It is highly probable that the unstable equilibrium of the transparent component cells of the crystalline lens would be readily disturbed by qualitative change in its environing fluids, especially any change from the normal relative density or specific gravity of the tissue of the lens and the nutritive fluids in which it is bathed. It is well known, for example, that the entrance into the tissues of the frog of rapidly diffusible substances, as chlorid of sodium, naphthalin and sugar, impair the transparency of the lens, presumably because of some such changes as suggested above in the osmotic qualities of the fluids in and around the lens. These considerations render it at least probable that in the cases here recorded the change in the density of the tissue fluids suggested by the varying amounts of sugar secreted with the urine, was sufficient to disturb the physiological relation of osmosis in the lens and by this means to cause the observed changes in the refraction of the eye.

THE TREATMENT OF CHRONIC HEART DISEASE BY WARM, MEDICATED BATHS ACCORDING TO THE "BAD NAUHEIM" OR "SCHOTT SYSTEM."¹

BY CHARLOTTE C. WEST, M.D.

Assistant in the Department of Clinical Medicine and Therapeutics at the Philadelphia Polyclinic.

SINCE the presentation of the "Schott Method" of treating heart disease by S. S. Cohen² before the Phila. County Medical Society some months ago, many inquiries

have been received from different parts of the country concerning it. This extensive interest has probably been awakened because of the great frequency of cardiac affections

¹ Extracts from a paper read before the Alumnae Medical Society of the Woman's Medical College of Pennsylvania

² S. Solis Cohen, PHILADELPHIA POLYCLINIC, March 6, 1896.

and the questionable results met with by routine treatment, as compared with the brilliant results reported from Schott's method. Sir T. Grainger Stewart,³ in his opening remarks upon the Schott Treatment before the British Medical Association at Carlisle in Sept., 1896, said: "Although the interest attaching to such a subject cannot compare with that of the announcement of the result of original research, yet in respect of practical importance it may deserve even more attention, and may in the end prove of greater value to the practitioner, for, even as things stand at present, the management of cardiac troubles constitutes a responsible part of a physician's work, but as the frequency of preventable disease decreases, it will become of even greater moment."

The rationale of the system has been asked for, and also explicit directions for giving the baths. A full account of the exercises is contained in the paper by Dr. Cohen and myself already referred to.

At Bad Nauheim, treatment is usually begun with the baths, which are five in number. The waters contain large quantities of NaCl, Fe and CO₂. The temperature is 90 to 92° F., which is lowered after immersion and during the patient's stay in the water to 85.5° F. The duration of the baths is 6 to 8 minutes. They may be artificially prepared and can be perfectly carried out in a hospital or private house. A porcelain tub is recommended. Treatment is begun with a quiet saline bath and gradually increased to a turbulent sprudel bath or strombath.

Robert Saundby⁴ gives the following directions:

To 40 gallons of water, sodium chlorid (NaCl) and calcium chlorid, (CaCl₂) with, later, sodium bicarbonate (NaHCO₃) and

hydrochloric acid (HCl), are added in the quantities given by the following table:

Bath 1.	NaCl 4 lbs.,	CaCl ₂ 6 oz.
" 2.	NaCl 5 lbs.,	CaCl ₂ 8 oz.
" 3.	NaCl 6 lbs.,	CaCl ₂ 10 oz.
	NaHCO ₃ 6 oz.,	HCl 7 oz.
" 4.	NaCl 7 lbs.,	CaCl ₂ 10 oz.
	NaHCO ₃ 8 oz.,	HCl 12 oz.
" 5.	NaCl 9 lbs.,	CaCl ₂ 11 oz.
	NaHCO ₃ 1 lb.,	HCl 1½ lbs.
" 6.	NaCl 11 lbs.,	CaCl ₂ 12 oz.
	NaHCO ₃ 1½ lbs.,	HCl 2½ lbs.

He uses only the first four, beginning with a quiet saline bath.

W. Bezley Thorne⁵ uses the following proportions of sodium bicarbonate and hydrochloric acid:

Mild—NaHCO₃ ½ lb., HCl (25 per cent.) ¾ lb.

Medium—NaHCO₃ 1 lb., HCl 1½ lb.

Strong—(Sprudel strength).

NaHCO₃ 2 lbs., HCl 3 lbs.

He says, "For the production of carbonic gas effervescence the action of HCl and NaHCO₃ is relied upon. The commercial articles answer all purposes. Two ways of employing the reagents are suggested. The one is calculated to induce slow and gradual, the other rapid, almost immediate effervescence. In the case of the first, the various salts, including the requisite proportion of NaHCO₃ having been dissolved, a bottle containing the acid is laid at the bottom of the tub, and the stopper having been withdrawn, it is moved about from time to time. The bath will be ready in two to three hours. For the more rapid production of effervescence, the stopper of the bottle containing the acid is loosened, but retained in position, the bottle having then been inverted and lowered until the mouth is just below the surface of the water, the stopper is then withdrawn, and

³Sir T. Grainger Stewart, *British Medical Journal*, September 19, 1896.

⁴Robert Saundby, *British Medical Journal*, Nov. 2, 1895.

⁵W. Bezley Thorne, "The Schott Method of the Treatment of Chronic Diseases of the Heart." London, 1895.

the bottle is moved about so as to diffuse a layer of acid as uniformly as possible over the surface of the bath. By this means the bath will be prepared in about 5 minutes."

Sir T Grainger Stewart recommends Sandow's⁶ tablets or powders, to produce effervescence. He says one powder is equal to a Sprudel, and two to a "Strom" bath. He has seen the most striking results while a patient was immersed, both as to diminution of the area of cardiac dullness and as to reduction of the frequency of the pulse. He made a series of experiments with ordinary Edinburgh water at 95° F., which failed to show the slightest effect on the heart and pulse; mere saline baths were equally resultless, but when combined with Sandow's powders, had the same effect as had been observed at Bad Nauheim. We have used the saline baths upon two patients of Dr. S. Solis-Cohen, at the Polyclinic without any pulse-reduction whatever; while, with one of these patients, the effervescent baths (Nos. 3 and 4), of Saundby had immediate effect. The baths alone are often beneficial, as the exercises sometimes make an irritable heart worse.

I have condensed from Stewart (*loc. cit.*) the following account of the action of the baths:

The skin is reddened, due to the dilatation of vessels, the pulse becomes slower, and of more regular rhythm. The peripheral resistance is diminished, rendering the work of the overtaxed heart lighter. Now the natural physiologic effect of diminished peripheral resistance would be to quicken the heart's action and cause a fall of arterial pressure. How is it that we get a slowing of the heart's action and a rise of pressure? The explanation may lie partly in the circumstance that the heart has been acting irregularly and too quickly in consequence of its unfitness to meet the demands made upon it, and that when it is relieved of a portion of the blood which was overfilling its chambers, it becoming equal to its work,

performs it more slowly and efficiently. It may also be true that with the attraction of blood to the peripheral vessels, the influx of venous blood to the heart is increased, the removal being diminished, and so long as this influx does not rise beyond the heart's power of propulsion, the action becomes more vigorous, and the arterial tension is raised, the balance of circulation being improved. He is not prepared to exclude the influence of baths largely upon the nerves of the skin acting upon the innervation of heart and vessels, as the simple, warm bath does not bring about the same result.

The theory adopted by Dr. Schott is that the baths and exercises act upon the heart through the nervous system by evoking a reflex influence which stimulates the action of the cardio-inhibitory or regulator nerves, thus slowing and strengthening the pulse, and though some of his friends in England take a different view, he adheres to this explanation.

Thorne's theory is that the baths and exercises dilate the arteries of the muscles, and those of the periphery generally, and thus relieve the heart from backward pressure. This view is supported by Sir William Broadbent, and his son, Dr. John Broadbent, and was likewise upheld by Dr. Cohen in his discussion before the County Medical Society. Saundby says this view is not consistent with the pulse tracings, nor with the physiologic law that the heart beats vary inversely with the blood pressure. If the effect of baths and exercises be to diminish blood pressure, the heart's action, following Marey's law, would be quickened; all are agreed that the pulse is slowed.

Saundby believes the principal effect is on the peripheral circulation (thus differing with Schott), but agrees with him that the blood pressure is raised, and, according to Marey's law, the heart's action is slowed. His theory is that the beneficial effects of treatment are due to the fact that the extra work imposed upon the heart, strengthens and develops its muscular wall, just as any muscle is strengthened and developed by well-regulated, systematic exercise, and not to any hypothetic reflex nervous effect upon the heart.

Thorne says: "The effect on the peripheral vessels is to increase their carrying

⁶ Sandow's Powders may be obtained from M. Buchner, 149 Houndsditch, London, E. C.

power; a glowing sense of warmth is experienced in the extremities and on the surface of the body generally; the veins are stimulated to a similar activity; in fact the general vascular capacity, systemic and pulmonary, is increased and without loss of blood, the relief of a general bleeding is afforded to an overloaded and laboring heart."

Sir Philip C. Smyly, in *The Dublin Journal of Medicine and Surgery*, September 1894, says: "There will ever be a feeling against this treatment until it is clearly seen and believed that:

(1) The movements relieve the back pressure of the heart.

(2) That the diminution in the size of the heart is due to the absence of an excess of blood in its cavity.

(3) That this is attained by there being more room in the arteries.

(4) That the heart muscle gains strength by having room to contract.

(5) That the contraction being more complete, it takes a longer time, thus making the pulse slower and at the same time fuller.

(6) Being able to send on more blood, it is ready to receive more, and thus removes venous congestion.

(7) The strength gained by the heart is due to the freedom to contract fully.

I have been associated with Dr. Cohen thus far in the treatment of seven cases, three with baths and exercises and four with exercises only. In all there has been remarkable improvement, though it has been much greater in some patients than in others.

FRACTURE OF THE AUDITORY MEATUS AND THE INFERIOR MAXILLA FROM A FALL ON THE CHIN.

BY B. ALEX. RANDALL, M.A., M.D.

Professor of Diseases of the Ear in the Philadelphia Polyclinic.

JOHN G—, aged 32, was admitted to the Polyclinic Hospital on December 16th, suffering from the effects of a fall of some fifteen feet, striking upon the chin. There was bleeding from the right ear, the nose and the mouth, lacerated wounds of the chin and lip, a fracture through the ramus of the jaw on the right and suggestions of fracture of the left ilium. No shock was present, the mind was clear and the pupils even; but the continuance of bloody oozing, followed by copious serous flow from the ear, maintained the suspicion of fracture of the base of the skull. His general condition steadily improved, the jaw-fracture united in good position, no other fracture was found; and on January 11th he was sent to me on account of the persisting deafness and the tenderness, pain and continued flow from the right ear.

I found the left ear fairly normal except for slight reduction of the hearing. On the right there was extreme deafness, which the tuning-fork showed to be wholly ascribable to the conducting apparatus; the meatus was red, tender and swollen from a furuncle close to the exit; and beyond this there was a greatly narrowed meatus, fully occupied by a polypoid mass. Removal of this showed

that the anterior and posterior walls were tender, red and almost in contact, hardly revealing the edges of a vertical rupture of the drumhead through which the root of the polyp was visible and out of which the thin purulent discharge was rapidly welling. The ophthalmoscope showed no suggestion of intra-cranial mischief. Cauterization of the polyp-root and hot boric douches speedily ameliorated the condition; the furuncular and deeper inflammatory swelling disappeared and showed that the protrusion of the anterior wall which effaced half of the lumen of the canal was bony, and due more probably to the crushing inward of the thin front wall of the meatus through the impact of the jaw-condyle than mere callus at the seat of fracture.

The case has gone on to cure of the discharge with nearly complete restoration of the hearing, but has persistent perforation of the drumhead and much narrowing of the deep portion of the canal, which are not likely to change. There has been no interference with the motion of the jaw, there is little tenderness or pain, and he may be said to have almost no traces of his injuries remaining.

The injuries to the auditory apparatus from blows upon the chin constitute rather a small group, and this case does not compare in interest with some where the jaw-condyle has been driven through the thin tympanic plate which forms the back of the glenoid fossa and the front wall of the meatus, and has been found impacted in this position, closing the canal. Rupture of the drumhead may easily occur even when the meatus wall has not been fractured; and concussion of the acoustic apparatus may give rise to total deafness, which may never be relieved.

The lesson which this and many of these cases teaches is important, that flow of blood and of thin serous fluid from the auditory canal by no means proves the presence of a fracture at the base of the skull, as is too often assumed. Guarded prognosis is certainly in place; but it must not be forgotten that the mucous membrane of the tympanum can pour out many ounces of serum in the course of

twenty-four hours when the lesion is confined to it, and such a flow constitutes the best aseptic washing for the injured structures. Protective measures alone are called for; and while it may be permissible to lift out blood clots in order to study the extent of the injury, non-intervention, except for definite and urgent cause, is the wiser policy. After several days, especially if nose-blowing has carried air into the tympanum and the aseptis of the nasal chambers is notably imperfect (the posterior nares are normally almost free of micro-organisms), it may be wise to employ mild aseptic douchings to counteract any infection. Their heat may give much relief to pain and decidedly stimulate resolution by reducing the inflammatory stasis. Rest in bed and general antiphlogistic measures are generally in place, for it is far safer to overestimate the injury and its probable results than to lull the patient into false security.

RED GUM GARGLE.

BY JOSEPH W. ENGLAND, PH.G.

Chief Druggist to the Philadelphia Hospital.

ALTHOUGH the employment of gargles has greatly diminished with the advent of the atomizer, yet there are certain relaxed and inflammatory conditions of the mouth and throat in which their use is of undoubted value. Some of the advantages possessed by them over sprays is that they are more readily used by the patients themselves, and, covering a larger area at one time, they bring a larger quantity of the medicament in contact with the mucous surfaces. As a rule, gargles contain astringent and disinfecting inorganic compounds—such as alum, borax, zinc sulfate, potassium chlorate, etc.; a tannin-containing vegetable astringent—such as fluid extract of sumach, etc.; in some cases a local stimulant—such as ammoniated tincture of guaiac, flavored with honey or sirup. The

writer originated the following formula a year or more ago, and has found the product made by it very serviceable.

Take of

Potassium chlorate	120 grains.
Boiling water	4 fluidounces.
Powdered alum	60 grains.
Stronger rosewater	2 fluidounces, 5 fluidrams.
Glycerin	4 fluidrams.
Sirup	4 fluidrams.
Fluid extract of eucalyptus rostrata (red gum)	3 fluidrams.

Dissolve the potassium chlorate in the boiling water, cool, and reserve. Dissolve the alum in the stronger rose water, add the glycerin, sirup, and fluid extract of red gum in the order named, and then add this to the reserved portion.

The product is a transparent ruby-red

liquid, of a very agreeable odor and taste. To use, take a tablespoonful, add an equal volume of water, and gargle every three or four hours, or more often, if required.

It is a singular fact that fluid extract of red gum has not been received with more favor by the medical profession than it has. It possesses many advantages over other vegetable astringents; unlike sumach and catechu, its liquid preparations remain clear on dilution with water, and what is more important, the astringency it exerts on mucous surfaces is peculiarly persistent. Stronger rosewater is double the strength of the usual rosewater, and gives, of course, a correspondingly stronger flavor of rose to the gargle. Possibly it might be of advantage, in some cases, to flavor the gargle with a few drops of oil of gaultheria (added directly to the boiling water used to dissolve the potassium salt) in place of the rosewater, but as a flavor gaultheria is less popular than rose, though, of course, it is better from an antiseptic viewpoint.

INJECTION FOR ANATOMIC SPECIMENS.—

Dr. A. Hewson reports that fresh bodies injected with the following fluid are indefinitely preserved, and the muscles are of a red color, allowing vessels and nerves to be readily seen during dissection.

Arsenous acid 4 ounces.
Glycerin 6 fluidounces.

Mix thoroughly in mortar, and boil in water (14 quarts) until dissolved, then add

Rock salt $7\frac{1}{2}$ lbs.
Potassium nitrate 2 lbs.
Carbolic acid (No. 1) 4 fluidounces.
Glycerin 6 quarts.
Methyl alcohol 4 quarts.

THE MEDICAL SOCIETY OF THE STATE OF PENNSYLVANIA, at its annual meeting in Pittsburgh, elected the following officers for the ensuing year: President, Dr. W. Murray Weidman, Reading; First Vice-President, Dr. W. B. Atkinson, Philadelphia; Second Vice-

President, Dr. J. W. Greyson, Washington County; Third Vice-President, Dr. B. W. Detweiler, Lycoming County; Fourth Vice-President, Dr. R. Bittinger, York; Secretary, Dr. C. L. Stevens, Athens; Assistant Secretary, Dr. Apple, Lancaster County; Treasurer, Dr. George Benson Dunmire, Philadelphia; additional members of the Board of Trustees, Dr. Armstrong, Lock Haven; Dr. J. E. Gable, York; Dr. W. T. Bishop, Harrisburg; Chairman of the Committee of Arrangements, Dr. Alex. Craig, Columbia. Lancaster was selected as the next place of meeting. Dr. Adolph Koenig was elected editor and publisher of the *Pennsylvania Medical Monthly*.

DO NOT OMIT to attend the luncheon at the POLYCLINIC HOSPITAL on Tuesday.

A CASE of *convulsions in an infant cured by ablation of the faucial tonsils* is reported by Dr. Woodbury. A mother brought a two-year old child to the hospital with the statement that the child had convulsions. The little patient was pale and the lips and ears were bluish. It was lying passively in its mother's lap, but occasionally would start up, struggle for breath and cry a little, and then sink back apparently exhausted by the effort. Upon examination, the faucial tonsils were found to be enormously enlarged and pressing against each other in the median line, completely obstructing any view of the throat. As the patient appeared to be on the verge of suffocation, Dr. Vansant, with a Matthieu guillotine amputated the projecting portion of the left tonsil, with evident relief to the child. Two weeks later the operation was repeated upon the right tonsil. The operations were not done simultaneously on account of the apparently moribund state of the patient, who has since then greatly improved in appearance.

MAY THE NEXT JUBILEE witness a united, progressive profession, to whom our highest wisdom shall be as the prattling of babes, or the dreams of children!

DIRECTORY FOR THE AMERICAN MEDICAL ASSOCIATION.

PLACES OF MEETING.

ALL meetings will be held in the immediate vicinity of *Broad and Locust Streets*; in the ACADEMY OF MUSIC, HORTICULTURAL HALL, and the BETH-EDEN CHURCH on the *west side* of Broad Street; and the HOTEL WALTON, BROAD STREET THEATER, and HOTEL STENTON on the *east side*; and the HALL at 1415 Locust Street.

The Registration Office, Post Office, Bureau of Information and Exhibit Hall will be in HORTICULTURAL HALL.

The General Sessions will be held at the ACADEMY OF MUSIC, commencing at 10 A. M.

Section Meetings will be held at 9 A. M. and 3 P. M. as follows:

Practice of Medicine.—Broad Street Theater.

Surgery and Anatomy.—Horticultural Hall.

Obstetrics and Diseases of Women.—Beth-Eden Church.

Ophthalmology.—Hotel Walton, tenth floor.

Laryngology and Otology.—1415 Locust Street, fourth floor.

Diseases of Children.—1415 Locust Street, second floor.

Materia Medica and Pharmacy.—1415 Locust Street, third floor.

Physiology and Dietetics.—Hotel Stenton, banquet room.

Neurology and Medical Jurisprudence.—1415 Locust Street, third floor.

Dermatology and Syphilography.—Horticultural Hall.

State Medicine.—1415 Locust Street, fourth floor.

Dental and Oral Surgery.—Hotel Stenton, Parlor D.

The Medical Societies of Philadelphia meet in the Hall of the College of Physicians, N. E. Cor. Thirteenth and Locust Streets.

HOTELS AND PLACES FOR SECTION DINNERS.

ALDINE HOTEL, 1914 Chestnut Street.

ART CLUB, Broad Street, North of Locust.

BELLEVUE HOTEL, N. W. Corner Broad and Walnut Streets.

BINGHAM HOUSE, Market and Eleventh Streets.

BOURSE, Fifth Street, north of Chestnut.

COLONNADE HOTEL, Chestnut and Fifteenth Streets.

CONTINENTAL HOTEL, Chestnut and Ninth Streets.

GIRARD HOUSE, Chestnut east of Ninth Street.

HANOVER, Twelfth and Arch Streets.

HOTEL LAFAYETTE, Broad and Sansom Streets.

HOTEL WALTON, Broad and Locust Streets.

STENTON, Broad and Spruce Streets.

STRATFORD HOTEL, S. W. Corner of Broad and Walnut Streets.

UNION LEAGUE, Broad and Sansom Streets.

WINDSOR HOTEL, No. 1217 Filbert Street.

PLACES OF ENTERTAINMENT.

ACADEMY OF FINE ARTS, S. W. Corner Broad and Cherry Streets.

BIJOU (Vaudeville), Eighth Street, between Race and Vine.

BROAD STREET THEATER, Broad Street, south of Locust.

CHESTNUT STREET OPERA HOUSE, 1025 Chestnut Street.

CHESTNUT STREET THEATER, 1211 Chestnut Street.

GIRARD AVENUE THEATER, Girard Avenue, near Seventh Street.

GRAND OPERA HOUSE, Broad Street and Montgomery Avenue.

WILLOW GROVE PARK, take cars at Broad and Locust Streets.

MEDICAL SCHOOLS AND HOSPITALS.

POLYCLINIC HOSPITAL, Lombard Street, west of Eighteenth Street. Luncheon, June 1st, at 1 o'clock.

CHILDREN'S HOSPITAL, Twenty-second Street, south of Walnut.

EPISCOPAL HOSPITAL, Front Street and Lehigh Avenue.

GERMAN HOSPITAL, Girard and Corinthian Avenues.

GERMANTOWN HOSPITAL, Shoemaker's Lane and Chew Street.

GYNECEAN HOSPITAL, 247 North Eighteenth Street.

HOWARD HOSPITAL, Broad and Catharine Streets.

JEFFERSON MEDICAL COLLEGE AND HOSPITAL, Sansom Street above Tenth.

JEWISH HOSPITAL, Tabor Station, P. & R. R. R.

KENSINGTON HOSPITAL FOR WOMEN, 124 Diamond Street.

LYING IN CHARITY HOSPITAL, Cherry and Eleventh Streets.

MEDICO-CHIRURGICAL COLLEGE AND HOSPITAL, Cherry Street, east of Eighteenth.

MUNICIPAL HOSPITAL, Twenty-first Street and Lehigh Avenue.

METHODIST HOSPITAL, Broad and Wolff Streets.

NORTHERN DISPENSARY, Fairmount Avenue and Sixth Street.

ORTHOPEDIC HOSPITAL AND INFIRMARY FOR NERVOUS DISEASES, Seventeenth and Summer Streets.

PENNSYLVANIA HOSPITAL, Eighth and Spruce Streets.

PHILADELPHIA HOSPITAL, Thirty-fourth and Pine Streets.

RUSH HOSPITAL, Thirty-third Street and Lancaster Avenue.

SAMARITAN HOSPITAL, Broad and Ontario Streets.

SOUTHERN DISPENSARY, 318 Bainbridge Street.

ST. AGNES HOSPITAL, Broad and Mifflin Streets.

ST. CHRISTOPHER'S HOSPITAL, Huntingdon Street, east of Fifth.

ST. CLEMENT'S HOSPITAL, Cherry Street, west of Twentieth.

ST. MARY'S HOSPITAL, Frankford Avenue, near Front and Columbia.

ST. JOSEPH'S HOSPITAL, Girard Ave., between Seventeenth and Eighteenth Streets.

UNIVERSITY OF PENNSYLVANIA AND HOSPITAL, Thirty-fourth and Spruce Streets.

WILLS EYE HOSPITAL, Race Street, west of Eighteenth.

WOMAN'S MEDICAL COLLEGE AND WOMAN'S HOSPITAL, Twenty-first Street and North College Avenue.

LIBRARIES AND MUSEUMS.

THE VARIOUS SCHOOLS, as above.

THE COLLEGE OF PHYSICIANS of Philadelphia, LEWIS LIBRARY and MÖTTER MUSEUM, N. E. Cor. Thirteenth and Locust Streets.

THE PHILADELPHIA POLYCLINIC

Brief, practical, original articles, and news of general professional interest are solicited for publication in this journal. Contributions accepted will be paid for on publication, or, if desired, and so indicated on the manuscript, 250 reprints will be furnished in lieu of other compensation.

Manuscripts and other communications intended for the Editor; exchanges, pamphlets and books for review, should be addressed to

THE EDITOR OF THE PHILADELPHIA POLYCLINIC,
219 S. Seventeenth St., Philadelphia, Pa.

Communications with reference to advertising should be addressed to

ADVERTISING DEPARTMENT

PHILADELPHIA POLYCLINIC,
Philadelphia, Pa.,

PHILADELPHIA, MAY 29, 1897

WELCOME TO THE AMERICAN MEDICAL ASSOCIATION.

PHILADELPHIA welcomes the American Medical Association to the city of its birth. It rejoices that still wise, vigorous and eloquent, the Father of the Association has been spared to behold his child grow into full, useful manhood, and to celebrate the completion of its fiftieth year. To Dr. N. S. Davis first, and second, but no less sincerely, to all the visiting members and delegates, it extends hearty greetings, warm congratulations, brotherly hospitality.

All the medical institutions of the city have opened their doors without restriction, and without other than the most generous sentiments to the Association and its members, asking in return only that their friends shall make the fullest possible use of the facilities offered.

THE PHILADELPHIA POLYCLINIC AND COLLEGE FOR GRADUATES IN MEDICINE tenders to visiting physicians from May 24th to June 12th the free service of all its clinics and

laboratories. On Tuesday, June 1st it asks them to luncheon. And at all times it greets them with the most cordial welcome.

THE TREATMENT OF CHRONIC DISEASE OF THE HEART BY BATHS AND RESISTED MOVEMENTS.

ELSEWHERE we publish an account of the artificial preparation of medicated baths for the purpose of carrying out the "Nauheim" or "Schott Method" treatment of chronic cardiac affections, which supplements the account given in a previous issue of the special exercises or gently resisted movements devised by the brothers Schott. This method of treatment, though comparatively new in America, has been thoroughly tested in Germany, and more recently in Great Britain, and those of largest experience are most enthusiastic in its praise. It was introduced into the clinical service of the Department of Therapeutics of the Philadelphia Polyclinic, not quite one year ago; at first the exercises only being studied. Within the last three months the baths also have been given and careful studies made of their effect. The details of cases will be made the subject of future report, but thus far we have every reason to believe that the British observers whose commendation led us to adopt the treatment have not been too sanguine or laudatory; and the only American observer whose experience antedates our own, DR. ROBERT BABCOCK, of Chicago, was in 1893 equally enthusiastic. We have seen nothing of later date from his pen and are unable to say what his latest views are.

Most certainly, whatever may be the rationale of their operation, the warm, saline, carbonated baths fill the peripheral vessels, at the same time that they cause slowing of the pulse rate and increased vigor of the heart's action; and in the Polyclinic experience gently resisted exercises do this even more markedly, and, perhaps, more permanently.

The cases in which we have thus far employed the treatment, seven in number, have been selected because of their severity; and in each instance the result has been far greater improvement than could have been obtained through medication. The method will be demonstrated to visiting physicians by appointment, at the Therapeutic Clinic of the Polyclinic Hospital. The object of making a special appointment is in order to give the opportunity to the greatest number of interested persons.

S. S. C.

Editorial Notes

There is no Politics in Philadelphia's welcome to the American Medical Association. Philadelphia has no personal interests to serve, no candidates for office, no aspirations to oppose, no ambitions to thwart, no one to reward, no one to punish. Her sole desire is that the Association shall worthily celebrate its anniversary by a meeting of the highest scientific value, marked by harmony and attended with pleasantness. She wishes good men put in office, or kept there if already in; but she does not purpose to be active in their selection. She recognizes the wisdom of the courteous rule that the city of meetings should never push "the claims" of her own men. She desires the meeting to be memorable for the absence of all pettiness, and she will do her share to make it so.

The Philadelphia County Medical Society's Luncheon.—At the Hotel Walton, on Tuesday, June 1st, at 1 o'clock, the President of the Philadelphia County Medical Society, Dr. Tyson, assisted by the Committee on Entertainment will receive and welcome the members of the American Medical Association. At the same time and place a luncheon will be given to the visiting physicians by the County Society. The cards of invitation will be obtained on registering and must be presented at the door; but as some delegates

and members will doubtless arrive too late to register before the entertainment, a member of the committee will be on hand to pass them in.

Current Literature

REPORT ON BACTERIAL PATHOLOGY.

BY M. V. BALL, M.D., Philadelphia.

Serum Test for Typhoid Fever.—Biggs and Park (*The American Journal of the Medical Sciences*, March, 1897). The literature of the test is reviewed and a table showing results in 422 cases reported by 15 observers up to January 1st is printed. Out of 422 cases 312 were diagnosed positively by the serum test on first examination, or about 95 per cent., and 92 negatively.

In 63 cases, in which typhoid fever had been present previously, 32 gave the reaction and 30 did not.

In the cases examined by Biggs and Park the reaction occurs in a dilution of one part of serum to 40 parts of broth culture in over one-half of the cases of typhoid fever by the end of the first week, and with this dilution it rarely if ever occurs when the serum from other diseases is used; when the serum is mixed in the proportion of 1 to 10, the reaction occurs in two-thirds of the cases of typhoid and only in 2 per cent. of the non-typhoid.

The absence of the reaction in a 1 to 10 dilution in a single examination does not exclude typhoid, but the absence in a series of examinations is of positive value.

Serum has advantages over dried blood, but the latter has given identical results.

The reaction should develop within ten to fifteen minutes to be of value. The duration of the substances in the blood which give the reaction varies greatly in different cases. In most instances they persist for months, but rarely if ever more than a year in a sufficient quantity to interfere with the test.

The test is quantitative rather than qualitative, since the agglutinating substances are present in other diseases, and it is necessary that the strength of the dilution should be noted.

The reaction did not appear before the sixth day.

Of 200 cases of suspected typhoid 100

gave the reaction, 57 of the remaining were finally not considered as typhoid, 40 gave no reaction, while 3 non-typhoid also gave a reaction.

Serum Test.—J. B. Thomas (*Medical News*, April 3, 1897). Twenty-eight cases of clinically diagnosed typhoid gave the reaction in all but 4.

In 29 cases of non-typhoid the reaction occurred in 5; a case of tuberculosis, one of rheumatism, one of malaria, and two cases of patients who previously had typhoid.

Thomas finds a reaction with the colon bacillus, while another observer (Durham) did not. This is believed to be due to a difference in the variety. A similar difference is said to exist in cultures of typhoid, so that some cultures give the reaction and others not, and some only in stronger solutions of serum.

In the Clinics

Under the Editorial Charge of DR. OAKLEY W. HERMANCE.

DR. YOUNG calls attention to the inequality of the lower extremities in *lateral curvature of the spine*, as being due in many cases of functional curves to an elongation of one limb from relaxation. This relaxation is due usually to faulty positions assumed by the patients from fatigue. The treatment is directed in these cases to shortening the long limb by appropriate exercises.

DR. DAVIS in a recent lecture dwelt at length on the necessity of watching carefully the *excretions of the pregnant woman*. The symptoms of toxemia appear and increase so insidiously that unless watched closely dangerous symptoms will appear in a short time. No headache in a pregnant woman should be allowed to pass unnoticed by her attending physician.

DR. H. AUGUSTUS WILSON teaches that in the treatment of *tuberculous diseases of joints* in incipency one should always try to secure ankylosis, rather than to avert its occurrence. In so doing there will be an avoidance of the traumatism of motion and ultimately a free, movable joint will more likely be obtained.

DR. A. FERREE WITMER reports a case of *akromegaly* now attending the Neurologic clinic. This is a woman, aged 53, who applied for treatment of neuralgic pain in the right knee. Examination showed marked hypertrophy of the lower jaw, the tongue, lips, nose and lobules of the ears. The bones of the hands were greatly increased in girth while the feet required a shoe three sizes larger than was necessary a few years previously. Close questioning elicited a probable onset of about three years ago. A preparation of pituitary gland will be given a thorough trial in the hope of arresting the progress of the disease. A full report of this case will be made later.

In a case of *empyema of the antrum* of long standing, Dr. Gibb has secured a satisfactory cure by making an artificial opening from the nose through the inferior meatus and flushing the cavity with a boric acid solution. While it is frequently advisable to keep the communication open by retaining the canula in position for a considerable time he has been able to effect a cure in some cases without doing so when the pressure of the canula on the septum threatened to perforate that delicate structure. In some cases it is more prudent to enter the antrum through an alveolus or through the canine fossa.

Retinoscopy by the students of the Polyclinic has received decided impetus from the monographs of Drs. Jackson and Thorington. In Dr. Hansell's clinic each patient who applies for glasses is tested by the retinoscope while under mydriasis and the result confirmed or modified by subsequent trial with the test lenses. It is found that the result obtained by the latter, which in all cases must be conclusive, conforms very closely, and, indeed, in many cases exactly, with that found by the retinoscope, thus proving its value as a practical and accurate method of determining the refraction of the media of the eye, and one, too—and this is no slight advantage—absolutely independent of the patients' uncertain answers to questions often only partially comprehended.

The Latch-string is out at the POLYCLINIC HOSPITAL.

THE PHILADELPHIA POLYCLINIC.

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- CHARLES H. BURNETT, M.D.**, Emeritus Professor of Diseases of the Ear.
- CHARLES B. MANOREDE, M.D.**, Emeritus Professor of General and Orthopedic Surgery.
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- HENRY R. WHARTON, M.D.**, Lecturer on the Surgical Diseases of Children.
- CHARLES P. NOBLE, M.D.**, Lecturer on Gynecology.
- COLLIER L. BOWER, M.D.**, Adjunct Professor of Clinical and Operative Surgery.
- JOHN T. CARPENTER, Jr., M.D.**, Adjunct Professor of Diseases of the Eye.
- FRANK W. TALLEY, M.D.**, Adjunct Professor of Gynecology.
- JAMES THORINGTON, M.D.**, Adjunct Professor of Diseases of the Eye.
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- CLARENCE A. VEASEY, M.D.**, Adjunct Professor of Ophthalmology.
- H. D. PEASE, M.D.**, Adjunct Professor of Bacteriology.
- J. D. MOORE, M.D.**, Adjunct Professor of Diseases of the Rectum.
- DAVID RIESMAN, M.D.**, Adjunct Professor of Clinical Medicine and Therapeutics.
- HILARY M. CHRISTIAN, M.D.**, Adjunct Professor of Genito-Urinary Diseases.
- A. O. J. KELLY, M.D.**, Adjunct Professor of Pathology.
- J. TERRANCE RUGH, M.D.**, Adjunct Professor of Orthopedic Surgery.
- ANNA M. FULLERTON, M.D.**, Associate in Surgery.
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- GEORGE C. STOUT, M.D.**, Instructor in Diseases of the Ear.
- HENRIETTA DOUGHERTY, M.D.**, Instructor in Diseases of the Ear.
- ARCHIBALD G. THOMSON, M.D.**, Instructor in Operative Ophthalmology.
- FLORENCE MAYO, M.D.**, Instructor in Diseases of the Eye.
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- PHILIP FISCHELIS, M.D.**, Instructor in Diseases of the Throat and Nose.
- JOHN W. GIBBON, M.D.**, Instructor in Surgery.
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- WILSON BOWERS, M.D.**, Instructor in Diseases of the Throat and Nose.
- FRANK WOODBURY, M.D.**, Instructor in Diseases of the Throat and Nose.
- KATE W. BALDWIN, M.D.**, Instructor in Diseases of the Throat and Nose.
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- B. F. R. CLARK, M.D.**, Instructor in Diseases of the Throat and Nose.
- M. A. BUNCE, M.D.**, Instructor in Medicine.
- A. A. STEVENS, M.D.**, Instructor in Medicine.
- W. OAKLEY HERMAN, M.D.**, Instructor in Diseases of Women.
- MISS J. M. WARD**, Instructor in Massage.

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TWO CASES OF EPILEPSY.

BY AUGUSTUS A. ESHNER, M.D.

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THE diagnosis of convulsive disorders is under the most favorable circumstances sometimes a matter of no inconsiderable difficulty. This difficulty is much accentuated when an opinion must be formed from the testimony of the patient or his friends or relatives, without an opportunity for personal observation. Often there may be detected interparoxysmal phenomena that make the recognition comparatively easy, but in not rare instances, these are so slight or so undistinctive as not to be depended upon. Further, it is to be borne in mind that the same patient may be the victim of more than one of the convulsive disorders, and the recognition of the exact state of affairs may not be possible without careful and sometimes protracted personal observation. I desire to report here two cases that illustrate some of the points alluded to.

CASE I.—M. C., a girl of 17, came to the Philadelphia Polyclinic with her mother, whom we had successfully treated for an attack of malarial fever. Of the girl, it was related that she had had several attacks of chorea in the preceding six years. There was no history of scarlatina or of rheumatism. Five months before coming under observation the patient had had an attack whose description corresponded with that of *petit mal*. Subsequently, similar attacks recurred with a frequency varying from three or four in a day, to one in three or four days. They were noted to be worse in anticipation of changes in the weather. Flatulent distention

appeared to be an exciting influence, and gaseous eructation to bring relief.

The girl was frequently chilly, but there was no manifestation of feverishness and no sweating. She was heavy, drowsy and disinclined to exertion. At times she slept poorly, and she suffered much from headache. She had been taking quinin, 5 grains thrice daily, upon the instigation of her mother, and this we continued in the same dose, given only in the morning, together with Fowler's solution, 5 drops thrice daily. The attacks continued, however, to recur with varying frequency, apparently with greater number and in greater intensity during the menstrual period. Bromids failed to afford relief.

Considerable improvement followed a sojourn in the country, but now a twitching appeared in the right upper extremity. Later this assumed the form of a tremor, continuing during rest, and being apparently diminished on voluntary effort. At one time or another there was some difficulty in micturition. The urine presented no abnormality. There also developed at this time a tic-like twitching of the muscles of the face, especially about the eyes. The patient was not seen then for nearly a year, when it was learned that her attacks had continued, although no convulsions had occurred, and the tongue had never been bitten.

Some months later the girl called our attention to a ticking in the right ear, which not alone she, but also those close to her, could hear. This was first noticed following an attack of sore throat, and was said to be worse in association with constipation. I had never observed a similar phenomenon before, but upon referring the patient to Dr. B. A.

Randall, he informed me that it was not at all uncommon, and that often it could be produced voluntarily. About this time the mother informed us that the only remedy that had any influence upon the attacks was quinin. She thought that the occurrence of cough also had a tendency to abort threatening attacks. A whiff of ammonia was likewise sufficient to abort an attack. It was related further that in some of the attacks the girl cried, and that in others her face became distorted into a hideous smile, and that she always first looked for a place to fall. In November, 1896, the girl was noticed to make clawing movements, and she began to lose consciousness in the attacks, after which she became still and slept for a short time. Sneezing or coughing would hasten the return to consciousness. It was stated that she tried to talk during the attacks, but could only mumble. On one occasion she fell upon a stove and burned herself. No impairment of sensibility could be discovered.

For a long time I felt considerable doubt about the actual nature of this case, but the doubt was finally resolved by witnessing an attack, which proved to be a typical one of mild epilepsy. That there is a strong hysterical element present I am forced to believe, and although there was some uncertainty as to whether the paroxysmal seizures spoken of were hysterical or epileptic, I am compelled to look upon them as epileptic. The significance of the fact that quinin is said to influence them favorably, I am unable to appreciate, except upon the hypothesis that being corrective of a possible malarial infection, it removes one influence capable of exciting the attacks. It is to be regretted that the conditions were not propitious for examination of the blood. With a neurotic mother, and an alcoholic and boisterous stepfather, the girl is favorably situated for the development of hysteria. The nervous attacks, believed to have been choreic, may have been of the nature of the movements that we have had the opportunity to observe, viz.: the jerking and the tremor in the arm and the tic-like movements in the face. I could readily believe these to be hysterical.

My own view of the matter is that the girl is both hysterical and epileptic. There is no adequate reason why she should not be, while there is much to sustain the likelihood of the association. The therapeutic problem is correspondingly intricate.

The cure of epilepsy is a subject whose discussion is surrounded with numerous complexities. Ordinarily it is not a difficult matter to restrain the frequency and severity of the attacks of inorganic convulsive epilepsy, but the matter of absolute cure, in the sense of entire and permanent relief, is not so easily disposed of. The interval between paroxysms is sometimes a very protracted one, even amounting at times to years, so that it is a hazardous matter to boast of cure in any case. Under these circumstances, one may well consider whether the disease is more to be dreaded than treatment with drugs. From a therapeutic standpoint, the text-books appear to make little distinction between *petit mal* and *grand mal*. It is my impression that the bromids do not exert the same happy influence upon the former as upon the latter, and that in general the attacks of minor epilepsy are less amenable to treatment than those of major epilepsy.

Of hysteria the most successful treatment can be conducted without large dependence on drugs. The problem is one whose solution resides largely in improvement of the bodily nutrition, with resultant adjustment of nervous co-ordination. It is here that all the natural resources of the physician will come into play, and the results of treatment will depend upon intelligence of administration and fidelity of execution.

CASE II.—J. P., a clerk, 35 years old, presented himself at the Howard Hospital March 27, 1896, in the service of Dr. Lewis Brinton (by whose courtesy I am permitted to make this report), relating that ten years previously, while an attendant in a hospital for the insane, he was struck in the lumbosacral region with a fist. He became un-

conscious and remained so for an hour and a half. During this period there is said to have been twitching of the muscles of the face and hands. Three months later, while seated on the deck of a vessel, the man had a second seizure, again losing consciousness. After this, the attacks recurred at intervals of about two months, until a year and a half before coming under observation, when he was refracted by Dr. W. Campbell Posey. In the intervening period there were but four seizures, two in the preceding two weeks, prior to which there had been a free interval of sixteen months.

Dr. Posey has been kind enough to write me concerning the patient as follows: "I found that he was wearing simple spherical glasses to correct near-sightedness. I refracted him very carefully, and found quite a high degree of near-sighted astigmatism, which I fully corrected. I placed him on mixed treatment, regulated his manner of living, stopped his tobacco, and for some months he was entirely free from attacks. I attributed this to the glasses, and to the change in the manner of his living. He was apparently free from any spasm for thirteen months. I never saw him in a seizure, and cannot tell whether it be true epilepsy or not. His optic nerves were rather gray, and the caliber of his retinal arteries seemed small. His interni were weak, but there was not enough muscular error to demand any particular interference."

All of the attacks are said to begin with a fine tremor in the hands and face, lasting for about a minute, when more active twitching sets in. Then consciousness is suddenly lost and remains in abeyance for five or ten minutes. During this period, general convulsions take place. At times the tongue is bitten, and froth is blown from the mouth. At the conclusion of the attack the patient feels tired and sleepy, and suffers from headache. His health between the attacks is good, except for a feeling of nervousness. The patient pointed out that the attacks only occurred when he had previously been jolted or struck by contact with persons or objects, although he was aware that such jolt or blow might not be followed by a convulsive seizure. He believed them to be superinduced by anxiety. He knew of no influence capable of exerting inhibitive activity. He was not addicted to excess in tobacco or alcohol.

Station was steady; the knee-jerks were preserved, though feeble. Cutaneous sensibility was preserved. The pupils were full, equal, reactive to light. Dr. Posey found the visual fields for both form and color normal. The action of the heart was rhythmic; the sounds were clear. The patient had had typhoid fever at the age of 27. He denied venereal infection. The family history was good.

Despite varied treatment, including bromid, nitroglycerin, amyl nitrate by inhalation, asafetida, ammonium valerianate, sodium bromid and elixir of quinin, iron and strychnin, the attacks recurred at intervals of two or three months. The remedy last named seemed to be at least as serviceable as any of the rest, if not more so.

The mere history of the attacks in this case would justify us in considering them to be epileptic, but their failure to yield to usual remedies, as well as their character, especially with regard to the exciting cause, raises the question of hysteria. Of the intimate nature of both of these states, we have as yet no clear knowledge, but I am averse to using the qualification *functional* or *idiopathic* in connection with them, inasmuch as the changes upon which they depend must be of a definite character, withal often beyond present means of scrutiny. It seems rational to believe that nutritive processes by excess (intoxication), or by deficiency (inanition), may act as the etiologic influence, leading, if long continued or frequently repeated, to structural alterations. From the former condition it is not unreasonable to expect recovery; from the latter, palliation is the most that can be hoped for.

MUCH has been said of late about the prevalence of eye disorders among American children, but very little has been done in the direction of practical reform. One of the few hopeful movements on this line is that recently organized in the Minneapolis public schools under the direction of Dr. Frank Allport, who contributes to the *June Review of Reviews* a valuable and suggestive account of what has been accomplished there.

FRACTURED RIBS IN THE AGED.

BY THOMAS S. K. MORTON, M.D.

Professor of Surgery in the Philadelphia Polyclinic.

It is common knowledge that the neck of the femur is frequently broken in the aged by almost trivial forces, but it is not so well known that in many persons of advanced life the ribs may give way upon application of very slight traumata. Cases of alleged rough treatment or brutality are sometimes thus to be explained. In the elderly insane the bones of the thorax not uncommonly are so fragile as to give way as if made of glass.

I have known of a number of cases of fracture of ribs or costal cartilages in elderly persons from slight force. Thus, a gentleman, himself a physician, returning from a protracted foreign tour heartily embraced his aged mother with the result of breaking a rib. A carpenter some years since consulted me as to his wife. He had returned from his work and given his wife a hug, as was his usual custom, when a loud snap was heard and later it was discovered that a rib had given way. She was about 60 years of age. Ten years ago a man of 70 years came under my care with dislocation of the right shoulder. The Astley Cooper method of reduction was determined upon and my flexed knee was placed in his axilla while his arm was raised to a right angle and then brought downward upon the knee acting as a fulcrum. The shoulder went into place, but just as the reduction was effected a sharp crack was heard and I realized that some portion of the chest wall had given way to the inward pressure of the knee. It proved to be a fracture of two ribs at the point of greatest pressure, but the man recovered without further complication.

A most interesting case of fragility of ribs has been under my observation for some years in the person of a lady otherwise unusually healthy and now in her sixty-seventh year. Until 1893 she had never been subject to a

fracture of any description. In that year she was lying in bed one morning playing with a two-year old grand-child. Suddenly the little one sat down upon her chest and a snap was heard. It proved to have been the breaking of the eighth rib on the left side. On April 2, 1896, while walking across a floor her foot caught in some obstruction and she fell prone with a closed hand under the right breast. A similar snap was observed and I subsequently discovered a fracture of the seventh rib on that side. On May 12th of the same year her carriage was collided with by a trolley car and overturned. Her companion, a rather heavy person, was thrown on top of her and broke the costal cartilages of the eighth and ninth ribs of the left side. In August, 1896, she was being carried off of a boat by her son when his foot slipped upon the wet planking of the wharf. He grasped her more firmly than usual in his effort to keep from falling and the body of a rib low down on the left side of the chest was fractured. In December, 1896, she was sitting in an arm-chair when her knitting ball fell from her lap to the floor. In bending over to pick it up a rib upon the right side was broken where it came in contact with the hard arm of the chair. Upon each occasion she experienced severe suffering for three weeks, but all of the various fractures united promptly, firmly and without deformity. A circular bandage and the partially sitting posture in bed were at all times found to be the most comforting methods of treatment.

Many cases of fracture of ribs in the aged are to be found in literature, but the following have recently fallen under my eye:

H. R. Mills Roberts¹ relates the case of a man aged 73 years who was crushed by a

¹ *British Medical Journal*, Nov. 21, 1896, p. 1505.

rock falling upon and pinning him between two boulders. He was much shocked, and loud bony crepitus could be elicited over the chest on both sides. Great emphysema of the chest, abdomen and back was present. For six days he improved, but then rather unexpectedly sank and died. Post-mortem examination revealed on the left side comminuted fracture of the sternal end of the clavicle, and fracture of all of the ribs including the first. The first eight ribs were broken at the angles. The second, third and eighth ribs were also broken at the sternal ends. The ninth, tenth, eleventh and twelfth ribs had but one fracture each. On the right side there was found single fracture of the sternal end of the third rib; the fourth, fifth, sixth and seventh ribs were broken, each at the angle and sternal extremity; the eighth and ninth were fractured each in one place. All of the other organs were normal save the right kidney, which contained a blood calculus. The lungs appeared to have sustained very little injury. In discussing this case, Mr. F. T. Taylor narrated the case of a gentleman aged 68 years, who fell downstairs and fractured all of the ribs as well as the clavicle on the left side. It was found necessary to keep him sitting upright in a chair to prevent syncope for a week, after which he was treated in bed and finally recovered. Mr. B. Pitts and Dr. Longhurst stated their belief that elderly persons suffering from broken ribs were usually best treated in the sitting or partially upright position for the first fortnight. Mr. Lunn agreed with this and stated that he did not strap their chests. He did

not think that fractures in old people united with difficulty as is so commonly believed. Mr. Howard Marsh remarked that Sir G. M. Humphrey taught that fractures in old people united as well as those in the young, and added that his own experience quite corroborated that opinion.

Hal C. Wyman² has reported the case of a man aged 72, who fractured his eighth rib during a paroxysm of sneezing. He believes it to have resulted from muscular action.

In speaking of the etiology of fractures of the ribs, Stimson³ states that "violent coughing has caused fracture several times, sneezing, once, turning in bed, twice, an effort to avoid falling while walking, once, and the exertion made in straightening a scythe blade, once. Usually it is one of the lower ribs that is broken, but it has happened also to the fourth, fifth and sixth. While some of the patients have been old and decrepit and their bones possibly more fragile than usual, others have been young and vigorous. Malgaigne claims to have observed a sort of senile atrophy in the ribs affecting especially their thickness, and making them much more liable to break; he says it is also found in connection with certain affections of the thoracic wall or viscera, and that he has seen it in a case of pulmonary emphysema and in one of cancer of the breast. In the latter case the tumor did not involve either the muscles or the ribs, yet the thickness of the latter was not more than one-third or one-fourth that of the ribs of the opposite side."

² *Jour. Am. Med. Assoc.*, No. 7, 1885.

³ *Fractures*, p. 311.

THE TREATMENT OF CERTAIN INFLAMMATORY DISEASES OF THE WOMB BY IRRIGATION.

BY FRANK W. TALLEY, M.D.

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At a meeting of the Obstetrical Society, November 2, 1893, I described a method for the treatment of endometritis, metritis and subinvolution by frequent and copious irriga-

tion of the womb with a hot alkaline solution, basing the paper upon the use of this treatment more than a hundred times. A further experience of four years has proved the method to be an exceedingly valuable one in the treatment of selected cases, which I wish here to describe.

Since writing my first paper I have irrigated the uterus more than a thousand times, and have in but two or three cases had uterine colic to follow. These were cases of simple endometritis in which the cervical canal was narrow, and the canula was introduced with some force. Usually in endometritis the cervix is patulous and the tissue softened, so that the canula easily enters. In subinvolution this is always so.

For the purpose of considering the indications and contra-indications for the application of irrigation to the treatment of inflammatory diseases of the womb, it will be well to consider the pathology of these conditions.

Endometritis we shall consider in its etiologic division into simple, septic and specific.

Simple endometritis presents itself as a hypertrophic or atrophic change in the mucous membrane of the womb; that is, as a condition of either increased nutrition and growth, or of starvation.

In the hypertrophic simple endometritis the bloodvessels are more numerous and dilated, the gland follicles more tortuous, and lined with swollen epithelium, the lymph spaces dilated, and the interglandular tissue filled with lymphoid cells. The surface of the membrane lining the cavity is bathed in a profuse milky secretion, while the cervix is filled with tenacious mucus, in which the white secretion of the cavity is admixed. In some instances the lymphoid cells occupying the tissue between the gland follicles undergo organization into connective tissue, and this, contracting about the gland follicles, filled with their swollen epithelium,

forces their orifices above the surface, giving rise to fungoid endometritis.

In other instances isolated gland follicles become hypertrophied and proliferate, giving rise to polypoid endometritis.

The atrophic simple endometritis is a condition of impoverished vitality. The bloodvessels are few in number, the gland follicles and thin lining epithelium decreased in size. The membrane is thinned and the lymphoid elements are scarce.

In only one of these forms of simple endometritis is the treatment by irrigation applicable. Cases of simple hypertrophic endometritis, provided the cervical canal is patulous and readily permits the introduction of the canula, experience, as a rule, immediate relief which persists for some hours after the irrigation, and the treatment if persisted in results in cure.

Obviously there is but one treatment for the fungoid and polypoid form of the disease, and that is the sharp curet. If, however, such cases refused the radical treatment, I believe the copious irrigation would afford the next most rational treatment by keeping the membrane clean, and especially in the polypoid form of the disease, reducing the danger of infection from retained discharges to a minimum.

In atrophic form of simple endometritis the irrigation treatment has proved useless. The use of irrigation in septic endometritis, following abortion and labor, has long been adopted as a rational form of treatment and deserves here no comment, as it belongs more properly to an obstetrical paper.

In the onset of specific or gonorrheal endometritis, the irrigation forms a very important adjunct to specific treatment. As the gonococci reside in the epithelial cells and beneath them, they are too deeply located to be influenced by the washing alone. Here irrigation becomes a valuable help to the treatment by intra-uterine medication. The endomet-

rium is first washed with the hot alkaline solution, and cleansed of its purulent secretions when the carbolic acid, or Churchill's iodine, may be injected with a Braun syringe with perfect confidence that its effect will be exerted upon the mucous membrane in its entirety.

In subinvolution, the irrigation treatment gives its best results. Here the mucous membrane is thickened, the womb is enlarged in all its diameter and the walls softened. If seen before the formation of fibrous tissue, the irrigation treatment will soon reduce the womb nearly to its former size. After the fibrous change, the reduction in size is much slower in its realization.

In this class of cases, the relief of the dragging pains incident to a heavy swollen womb is immediate, and the patient leaving the room, will often express herself as feeling much better than when she entered.

The method consists in the frequent and copious washing of the uterine cavity with hot water through a specially adapted canula. In its application, the patient is placed in the dorsal position upon the examining table or chair, the cervix is exposed with a speculum, and washed with a cotton mop and a 1 : 1000 mercuric chlorid solution. A reservoir of at least one gallon capacity is filled with water at a temperature of 110° F., to which one dram of sodium bicarbonate and half a dram of carbolic acid to the quart have been added, and placed near the foot of the table at an elevation of four feet above the patient. To the end of the rubber tube leading from the reservoir the canula is attached and the solution is allowed to run until all air has been expelled and the tube is filled with warm solution. The canula is then inserted to the fundus of the womb and the water allowed to flow through. From one to two gallons are used at each irrigation, and the treatment is applied as a rule twice or thrice a week. The time required for one gallon of fluid to run through is about six minutes. After completing the

irrigation the flow from the reservoir is cut off and the canula allowed to remain for a few minutes for the uterus to drain before its withdrawal.

The canula used is about twelve inches long, slightly curved at its extremity and perforated at the end and on every side for the extent of one inch and a half. Two pieces of wire are soldered on to the convex side so as to provide for the return flow and yet expose the mucous membrane to the washing throughout its extent. The whole should pass through a No. 15 French catheter scale. For the protection of the clothing of the patient a speculum has been also devised with a gutter upon the lower valve and a funnel at its distal end, to which a rubber tube is attached to convey the wash water to a bucket at the foot of the table. These instruments have been prepared for me by Messrs. Chas. Lentz & Sons, to whom I am indebted for their painstaking.

The theory of the method, beside that of washing an absorbing membrane of unhealthy discharges, is based upon the effect of heat and moisture upon the vaso-motor nerves. The primary effect of heat and moisture is vaso-motor dilatation, the part becoming red and swollen. This, if persisted in, gives place to vaso motor contraction, rendering the tissue blanched and shrivelled. This change is noticeable in the cervix, which, at the beginning of the irrigation, is perhaps more congested, becomes lighter in color and reduced in size as the irrigation is persisted in. *Obviously, therefore, should the injection be stopped before the onset of the second stage, the patient will be injured rather than benefited by the treatment.*

In conclusion, I can recommend the treatment of simple hypertrophic endometritis, specific endometritis, metritis and subinvolution, by frequent and copious irrigation with alkaline water at a temperature of 110° F., as a safe and effective method. If the cases are selected and the irrigation treatment is only adopted in those cases in which the cervical canal is wide and the canula passes through with ease, there is no danger of subsequent uterine colic.

As the primary effect of the irrigation is to increase the congestion of the uterus, it must be persisted in until the constriction of the capillaries has blanched the tissues.

**MEETINGS OF THE GENERAL SESSIONS OF THE FORTY-EIGHTH ANNUAL
MEETING OF THE AMERICAN MEDICAL ASSOCIATION,
PHILADELPHIA, JUNE 1, 2, 3, and 4, 1897.**

FIRST DAY, TUESDAY, JUNE 1.

At 10 o'clock in the morning, in the presence of more than 2300 delegates, the first general session of the fiftieth anniversary of the American Medical Association was called to order by the President, Nicholas Senn. The opening prayer was made by the Rev. Leverett Bradley, Rector of St. Luke's Protestant Episcopal Church, after which addresses of welcome were delivered by Mayor Warwick, and by ex-Minister to Russia, Charles Emory Smith, the latter representing Governor Hastings, who was unable to be present, owing to his detention by official business in Harrisburg.

Dr. H. A. Hare, Chairman of the Committee of Arrangements, then made a number of announcements relating chiefly to the plans for the entertainment of the visiting members, at the conclusion of which the annual address of the President was delivered by Nicholas Senn.

In opening, President Senn spoke of the new era in medical science which had just opened at the time of the birth of the Association, fifty years ago—an era which had but recently witnessed the introduction of anesthesia, and which on further development was to bring forth the wonderful discoveries of bacteriology, and the application of the principles of antisepsis to surgery. He recounted the history of medicine in America since the Colonial days, paid high tribute to the memory and achievements of Benjamin Rush, and said that he considered it especially fitting that Philadelphia, from her right to be called the medical center of America, and by virtue of her having been the birthplace of the American Medical Association, should have been selected as the place for holding the jubilee meeting. Dr. Senn's other remarks pertained to the development of American medical schools and medical literature; to the code of ethics; and to the value of medical societies as training schools for young physicians. In closing he predicted with satisfaction the future when medicine shall become considered one of the exact sciences.

The report of Dr. A. L. Gihon, U. S. N. (retired), which was next read, on the work accomplished by the Committee on the Rush Monument Fund, of which he is chairman, showed the deplorable state of apathy which had long existed towards this project; but the tribute paid by Dr. Gihon to Benjamin Rush in his address, and the eloquent appeal he made for

funds to complete the memorial resulted in pledges of money aggregating over \$12,000, by subscriptions of \$2,000 each from the states of Colorado, Ohio, Missouri, Illinois, New York, and Pennsylvania, in addition to several personal subscriptions of \$100 each from individual members of the Association. It was finally decided to raise \$100,000 for the Rush monument.

The report of the treasurer, Dr. H. P. Newman, was now read, and several amendments made to the constitution, after which the meeting adjourned.

SECOND DAY, WEDNESDAY, JUNE 2.

The address on Medicine was delivered by Austin Flint, M.D., of New York. Dr. Flint dwelt particularly upon the future of medicine, and was hopeful that before the centennial meeting of the Association, such diseases as typhoid and typhus fevers, tuberculosis and perhaps other conditions shall have been swept off the face of the earth by the coming triumphs of American preventive medicine. He enumerated the important discoveries of medicine during past fifty years, mentioning the Abbé condenser, apochromatic lenses, and other aids to which the present state of high development of pathologic and physiologic histology is due, and recalled the fact that the views held fifteen years ago by his father concerning the future of medicine had many of them been already fulfilled. The remainder of Dr. Flint's address dealt with the results of original researches on the chemistry and physiology of cholesterine, and allied products.

After the transaction of miscellaneous business, and the report of the Executive Committee had been received, the President of the United States was introduced. President McKinley delivered a brief address, during the course of which he took occasion to express his highest personal regard for the noble profession of medicine, and to convey his sincerest wishes that every success shall attend the deliberations of the Associations.

Governor Hastings was now presented, and spoke in a felicitous and humorous vein, on topics *propos* of the occasion.

At the conclusion of the Governor's speech, a resolution embodying a vigorous protest against the antivivisection law recently introduced into Congress was offered by Dr. H. C. Wood, of Philadelphia, and enthusiastically adopted.

As we go to press we are informed that the nominating committee will report the name of Surgeon-General Sternberg for President of the Association, and Denver, Colorado, as the next place of meeting.

THE PHILADELPHIA POLYCLINIC

Brief, practical, original articles, and news of general professional interest are solicited for publication in this journal. Contributions accepted will be paid for on publication, or, if desired, and so indicated on the manuscript, 250 reprints will be furnished in lieu of other compensation.

Manuscripts and other communications intended for the Editor; exchanges, pamphlets and books for review, should be addressed to

THE EDITOR OF THE PHILADELPHIA POLYCLINIC,
219 S. Seventeenth St., Philadelphia, Pa.

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PHILADELPHIA POLYCLINIC,
Philadelphia, Pa.,

PHILADELPHIA, JUNE 5, 1897

THE JUBILEE MEETING.

THE meeting of the American Medical Association held this week in Philadelphia was, as anticipated, highly successful, both in its social and scientific aspects. More than 2,500 members attended, all sections of the country being fairly represented. The committee of arrangements is to be congratulated upon the success of its efforts to have everything run smoothly, upon the convenience of the places of meeting, and upon the unusually clean character of the exhibits.

We have every reason to believe that the care exercised by the Committee on Exhibits has not resulted in any loss of revenue, the space being more eagerly sought for than ever by exhibitors whose products entitled them to admission; and even had it resulted in loss, this would have been amply compensated for by the fact that the dignity of the Association and its consistency with its own laws have been for the first time in many years completely upheld.

The meeting has not yet concluded as we go to press, and we can, therefore, not report the important business that is to be transacted upon the last morning; nor have we aimed to present in any degree a detailed report of the proceedings. This will be

found in the daily papers of Philadelphia, and in the larger medical weeklies, which have sufficient space at their disposal, and one of which we presume every subscriber to THE POLYCLINIC also takes—the *Journal of the American Medical Association*, if no other.

The meeting of the Academy of Medicine was a noteworthy one also, and about one hundred new members were added, the largest number of accessions in its history.

During the coming week medical Philadelphia will still keep "open house." Elsewhere will be found a list of the clinics and demonstrations offered at the Polyclinic Hospital during the week beginning June 7th. We again extend to visiting members an invitation to make every use possible of our clinical and laboratory facilities.

In the Clinics

Under the Editorial Charge of DR. OAKLEY W. HERMANCE.

DR. CANTRELL said that the best method of treating both *small angiomatic growths* and warty excrescences was by the use of electrolysis in the same manner as was advised for the removal of superfluous hairs.

* *

THE rare and interesting condition of *chorea of the larynx* was recently illustrated in Dr. Gibb's clinic. At irregular intervals the patient, a nervous and anemic young woman, uttered a crowing sound somewhat like a prolonged hiccup. The vocal cords were red and irritable, exhibiting a vibratile or oscillatory movement.

* * *

DR. YOUNG showed a case of *hip disease, with marked elongation and outward rotation of the limb*; this was one of four cases seen during the winter of this rare deformity. In only one did suppuration occur. The cause for the deformity appears to be a spasm of the external rotator muscles of the hip-joint, except where there is caries of the neck of the bone.

THAT repeated sclerotomy, advocated by the French surgeons, is unsuccessful in checking the advance of blindness when performed in the late stages of simple or non-inflammatory *glaucoma*, is illustrated in the case of a patient, 50 years of age, operated on by Dr. Hansell one year ago. Double sclerotomy upward and in three weeks double sclerotomy downward was performed, involving in all, three-fifths of each corneo-scleral border. The man declared that his vision had been improved, but his statement could not be scientifically verified. Now, twelve months later, the disks are deeply and wholly cupped, the nerves atrophied, the fields restricted for the perception of light, and central vision reduced to the perception of moving objects.

BOOKS RECEIVED.

HYSTERIA AND ALLIED CONDITIONS. By George J. Preston, M.D. Illustrated. Pp. 298. Philadelphia: P. Blakiston, Son & Co. 1897.

THE MEETING OF THE AMERICAN ACADEMY OF MEDICINE.—The Academy, which was organized in 1876, and has, therefore, reached its majority, held a very successful meeting in Philadelphia on May 29th and 31st. Dr. James C. Wilson presided. Among the most interesting subjects discussed were the questions of Medical Education in its Relations to General Education, and The Abuse of Medical Charity. The following officers were chosen for the ensuing year:

President, L. Duncan Buckley, of New York; Vice-Presidents, Dr. John B. Roberts, Philadelphia; V. Y. Bowditch, Boston; Charles Dennison, Denver; F. T. Rodgers, Providence; Secretary and Treasurer, Charles McIntire, Easton; Assistant Secretary, Walter L. Pyle, Philadelphia.

Physicians in good standing who possess a degree of Bachelor of Science or Bachelor of Arts from a recognized college, are eligible to membership in the Academy. Full particulars can be obtained by addressing the secretary, Dr. Charles McIntire, Jr., Easton, Pa.

THE LATCH STRING IS STILL OUT at the POLYCLINIC HOSPITAL.

LECTURES AND CLINICS AT THE POLYCLINIC HOSPITAL DURING THE WEEK BEGINNING JUNE 7th.

Hours.	MONDAY, JUNE 7.	Hours.	WEDNESDAY, JUNE 9.
9	Prof. RISLEY, or Adj. Prof. THORINGTON, <i>Diseases of the Eye.</i>	9	Prof. RISLEY or Adj. Prof. THORINGTON, <i>Diseases of the Eye.</i>
10	Prof. STERN, <i>Skiagraphy.</i> *Prof. TAYLOR, <i>Diseases of Children.</i>	10	*Prof. BALDY, <i>Gynaecology.</i> Dr. McKee, <i>Diseases of Children.</i>
11	*Prof. MORTON, <i>Surgery.</i> Prof. VANSANT, <i>Diseases of Throat and Nose.</i> Adj. Prof. WELLS, <i>Obstetrics and Diseases of Infants.</i>	11	*Prof. ADLER, <i>Diseases of the Rectum.</i> Adj. Prof. WELLS, <i>Obstetrics and Diseases of Infants.</i> Prof. VANSANT, <i>Diseases of Throat and Nose.</i>
12	Prof. COHEN, <i>Clinical Medicine.</i> Prof. SEISS, <i>Diseases of the Ear.</i> Dr. Sweet, <i>Diseases of the Eye.</i>	12	Prof. COHEN, <i>Therapeutics.</i> Prof. DAVIS, <i>Opietrics.</i> Prof. CANTRELL, <i>Diseases of the Skin.</i> Prof. STEINBACH, <i>Surgery.</i>
1	Prof. CANTRELL, <i>Diseases of the Skin.</i>		
2	Prof. WATSON, <i>Diseases of the Throat and Nose.</i> Adj. Prof. RUGH, <i>Orthopedic Surgery.</i>	1	Dr. Sweet, <i>Diseases of the Eye.</i> Prof. SEISS, <i>Diseases of the Ear.</i> Prof. WILSON, <i>Orthopedic Surgery.</i>
3	*Prof. WATSON, <i>Diseases of the Throat and Nose.</i> Dr. McConnell, <i>Neurology.</i> Prof. DALAND, <i>Diseases of the Chest.</i>	2	Prof. WATSON, <i>Diseases of the Throat and Nose.</i>
4	Prof. SCHNEIDEMAN, <i>Diseases of the Eye.</i> Adj. Prof. CHRISTIAN, <i>Genito-Urinary Surgery.</i>	3	*Prof. MILLS, <i>Neurology.</i> Prof. DALAND, <i>Diseases of the Chest.</i>
5	*Prof. ROBERTS, <i>Surgery.</i> Prof. ESHNER, <i>Medicine.</i>	4	Prof. SCHNEIDEMAN, <i>Diseases of the Eye.</i> Adj. Prof. CHRISTIAN, <i>Genito-Urinary Surgery.</i>
7.30	Prof. MARTIN, <i>Genito-Urinary Surgery.</i>	5	Adj. Prof. BOWER, <i>Surgery.</i> Prof. ESHNER, <i>Medicine.</i>
	* In amphitheatre.	7.30	Prof. MARTIN, <i>Genito-Urinary Surgery.</i>
			* In amphitheatre.

Hours.	TUESDAY, JUNE 8.	Hours.	THURSDAY, JUNE 10.
9	*Prof. Jackson, <i>Refraction of the Eye.</i> Prof. RISLEY or Dr. Murphy, <i>Diseases of the Eye.</i>	9	Prof. RISLEY or Adj. Prof. THORINGTON, <i>Diseases of the Eye.</i>
10	*Prof. BALDY, <i>Gynecology.</i> Dr. McKee, <i>Diseases of Children.</i> Prof. STERN, <i>Sktagraphy.</i>	10	Prof. TAYLOR, <i>Diseases of Children.</i> *Prof. DAVIS, <i>Obstetrics.</i>
11	*Prof. STEINBACH, <i>Surgery.</i> Adj. Prof. WELLS, <i>Obstetric Clinic.</i> Prof. GIBB, <i>Diseases of Throat and Nose.</i>	11	Prof. GIBB, <i>Diseases of the Throat and Nose.</i> Prof. GRIFFITH, or Dr. Stevens, <i>Clinical Medicine.</i>
12	Prof. GRIFFITH or Dr. Stevens, <i>Clinical Medicine.</i> Prof. CANTRELL, <i>Diseases of the Skin.</i> Prof. DAVIS, <i>Obstetrics.</i> Prof. HANSELL, <i>Diseases of the Eye.</i>	12	Prof. MARTIN, <i>Genito-Urinary Surgery.</i> Prof. CANTRELL, <i>Diseases of the Skin.</i> Prof. HANSELL, <i>Diseases of the Eye.</i>
1	Prof. RANDALL, <i>Diseases of the Ear.</i> Prof. BAER, <i>Gynecology.</i> Prof. TAYLOR, <i>Pediatrics.</i>	1	Prof. RANDALL, <i>Diseases of the Ear.</i> Prof. BALDY, <i>Gynecology.</i> Prof. BAER, <i>Gynecology.</i>
2	Prof. YOUNG, <i>Orthopaedic Surgery.</i> *Prof. FREEMAN, <i>Diseases of Throat and Nose.</i> Prof. STEWART, <i>Diseases of the Stomach and Intestine.</i> Prof. MAKUEN, <i>Defects of Speech.</i>	2	Prof. YOUNG, <i>Orthopaedic Surgery.</i> Prof. FREEMAN, <i>Dis. of the Throat and Nose.</i> Prof. Stewart, <i>Diseases of the Stomach and Intestine.</i>
3	Prof. MAYS, <i>Diseases of the Chest.</i>	3	*Prof. MAYS, <i>Diseases of the Chest.</i> Prof. MAKUEN, <i>Defects of Speech.</i>
4	Prof. de SCHWEINITZ, } <i>Operative Ophthalmology.</i> Adj. Prof. VEASEY, } Prof. NELSON, <i>Genito-Urinary Surgery.</i>	4	*Prof. RISLEY, <i>Diseases of the Eye.</i> Dr. Mayo, <i>Diseases of the Eye.</i> Prof. NELSON or Dr. Lindsay, <i>Genito-Urinary Surgery.</i>
5	Prof. SLOCUM, <i>Gynecology.</i> Prof. STERN, <i>Surgery.</i> Prof. ESHNER, <i>Diseases of the Chest.</i>	5	Adj. Prof. VEASEY, <i>Diseases of the Eye.</i> Prof. STERN, <i>Surgery.</i> Prof. ESHNER, <i>Diseases of the Chest.</i>
	* In amphitheatre.		* In amphitheatre.

Hours.	FRIDAY, JUNE 11.	Hours.	SATURDAY, JUNE 12.
9	*Prof. Jackson, <i>Refraction of the Eye.</i> Prof. RISLEY or Dr. Murphy, <i>Diseases of the Eye.</i>	9	Prof. RISLEY or Adj. Prof. THORINGTON, <i>Diseases of the Eye.</i>
10	Dr. M. B. Miller, <i>Asepsis and Antiseptis.</i>	10	Dr. McKee, <i>Diseases of Children.</i>
11	*Prof. MORTON, <i>Surgery.</i> Prof. VANSANT, <i>Diseases of the Throat and Nose.</i> Adj. Prof. WELLS, <i>Obstetrics and Diseases of Infants.</i>	11	*Prof. STEINBACH, <i>Surgery.</i> Adj. Prof. WELLS, <i>Obstetrics and Diseases of Children.</i>
12	Prof. COHEN or Adj. Prof. REISMAN, <i>Clinical Diagnosis.</i> Prof. CANTRELL, <i>Diseases of the Skin.</i> Dr. Sweet, <i>Diseases of the Eye.</i> Prof. VANSANT, <i>Laryngology.</i>	12	Prof. GIBB, <i>Diseases of the Throat and Nose.</i> Prof. GRIFFITH, <i>Medicine.</i> Prof. CANTRELL, <i>Diseases of the Skin.</i> Prof. HANSELL, <i>Diseases of the Eye.</i> Prof. ESHNER, <i>Medicine.</i>
1	Prof. de SCHWEINITZ, <i>Ophthalmology.</i> Prof. SEISS or Dr. Shimer, <i>Diseases of the Ear.</i>	1	Prof. RANDALL, <i>Diseases of the Ear.</i> Prof. YOUNG or Assistant, <i>Orthopedics.</i>
2	Adj. Prof. RUGH, <i>Orthopaedic Surgery.</i> Prof. WATSON, <i>Diseases of the Throat and Nose.</i>	2	Prof. FREEMAN, <i>Diseases of the Throat and Nose.</i> Prof. STEWART, <i>Diseases of the Stomach and Intestine.</i>
3	Prof. MILLS, <i>Neurology.</i> Prof. DALAND, <i>Diseases of the Chest.</i>	3	Prof. MAYS, <i>Diseases of the Chest.</i> Prof. MAKUEN, <i>Defects of Speech.</i> Dr. Witmer, <i>Neurology.</i>
4	Prof. SCHNEIDEMAN, <i>Ophthalmology.</i> Adj. Prof. CHRISTIAN, <i>Genito-Urinary Surgery.</i>	4	*Prof. NELSON, <i>Genito-Urinary Surgery.</i> Prof. de SCHWEINITZ, } <i>Diseases of the Eye.</i> Adj. Prof. VEASEY, }
5	Prof. SLOCUM, <i>Gynecology.</i> Prof. ESHNER, <i>Medicine.</i>	5	Prof. STERN, <i>Surgery.</i> Prof. ESHNER, <i>Diseases of the Chest.</i>
7.30	Prof. MARTIN, <i>Genito-Urinary Surgery.</i>		
	* In amphitheatre.		* In amphitheatre.

nant disease differs radically from that of other organs in the fact that renal involvement is most common in the first months or years of life; it may even be apparent at birth. In the great majority of cases the new growth is a sarcoma, with round or spindle or polymorphous cells; sometimes it presents the histologic structure of a rhabdomyoma, suggesting its origin in some developmental defect. The tumor is usually

unilateral, one kidney suffering almost equally with the other. The two sexes also suffer almost equally. The disease is invariably fatal in the absence of surgical intervention, of which it must be confessed the results have not been very encouraging. If, however, extensive metastasis has not taken place, the child should be given at least the small chance of escape that timely operation affords.

PERSISTENCE OF THE UMBILICAL CORD.

BY W. A. NEWMAN DORLAND, A.M., M.D.

Assistant Demonstrator of Obstetrics in the University of Pennsylvania, etc.

WITHIN the past ten months the attention of the writer has been called in two instances to a curious condition of the umbilical cord, or rather of the stump of the cord, mention of which he has been unable to find in any of the standard text-books on obstetrics. This condition consists in a failure of occurrence of the usual phenomena attendant upon the separation of the cord; in other words, the normal line of demarkation does not form, or it is only present in part, and instead of the process of disintegration and separation being accomplished within the usual limit of from four to six days, the cord persists indefinitely, or until removed by some surgical procedure. An examination of the section of cord after this secondary amputation reveals a great excess of fibrous connective tissue with total obliteration of the vessels and an apparent fibrous degeneration of all the structures. If proper antiseptic precautions be observed prior to the secondary amputation the infants do not seem to suffer in the least from this unusual state of affairs.

The condition is quite distinct from that known as umbilical fungus, which is a true granulation-tumor forming after the spontaneous separation of the cord, and which is probably due to an excess of moisture—blood

and serum—around the part. The change in question, as has already been suggested, seems rather to be a process of fibroid degeneration without any tendency whatever to mummification. A close examination of the amniotic covering of the stump shows no attempt at ulceration at any point from the site of the ligature to the navel-ring; the distal one-third or one-half inch of the cord may, however, be somewhat mummified, but otherwise the cord presents no abnormal features. In the two cases personally encountered by the writer, separation had not occurred at the ninth and sixteenth days, respectively, and he was informed by one of the delegates to the recent convention of the American Medical Association, to whom he had made mention of the matter, that a similar case had occurred, a few monthssince, in his own practice, in which the cord had persisted for eight weeks, at the expiration of which time he had, at the request of the family, amputated close to the navel-ring. The tissue at this time, he said, was almost cartilaginous in density, and there was not the slightest sign of beginning separation, nor had the child suffered in the least from this unusual persistence of its umbilical appendage.

Owing to the fact that a mere fissuring had occurred on the under surface of the cord,

close to the abdominal wall, in the first of the writer's cases, thorough antiseptics of which had not been observed, the child presented, on the eighth day, the signs of septic infection with convulsions, persistent and high elevation of temperature, and a rapidly-developing omphalitis, which resulted fatally on the following day, a few hours after amputation of the cord had been accomplished. The labor in this instance had been somewhat prolonged, the child presenting in the third position of the vertex (R O P), and rotation and delivery being prevented by a marked uterine inertia; an easy forceps-delivery was accomplished, followed by a smart post-partum hemorrhage; there was no tear; the cord encircled the neck once.

The second case was the child of a primipara, who had passed through a remarkably easy labor lasting but three hours and forty-six minutes. The baby menstruated on the fourth day, the flow lasting for three days. At the time of separation of the cord, on the sixteenth day, the tissue was thoroughly organized, so much so, in fact, that no trace

of the vessels or other structures could be detected. A slight oozing of serum persisted after the amputation for two days, and then ceased.

Upon looking more closely into the probable etiology of this rare condition, it would seem quite rational to suppose that some intimate relationship must exist between the changes in the cord and the dry method of umbilical antiseptics that is practised by the majority of the present-day obstetricians. Talcum powder, lycopodium, salicylic acid and starch, boric acid, acetanilid—all have been and are constantly being employed, and it stands to reason that, if this process be carried out with the usual degree of thoroughness that the well-trained antiseptic surgeon would insist upon, the tendency would be rather to a preservation of the umbilical tissues than to their proper disintegration and separation. This is merely offered as a suggestion as to the probable causation of the persistence, although it does not explain why the condition does not result in every instance so treated.

SEVERAL CASES OF LICHEN PLANUS.

BY J. ABBOTT CANTRELL, M.D.

Professor of Diseases of the Skin in the Philadelphia Polyclinic and College for Graduates in Medicine, Dermatologist to the Philadelphia Hospital, and to the Frederick Douglass Memorial Hospital.

IN recording the cases of lichen planus which have lately presented themselves at my service at the Philadelphia Polyclinic, I hope to direct the attention of the reader to the plans of treatment adopted in each case. While most of the patients have been placed under the influence of arsenical medication, it is no doubt true that cures may be observed through the judicious systemic use of other nervines. After we have reasonably assured ourselves of the correctness of the diagnosis by entirely differentiating all other skin affections which may at any time simulate lichen planus either in the

lesions narrated or those showing similarity at the time the patient presents himself, we look to the most available remedies. The following cases illustrate various methods of treatment:

CASE I.—A. E. W., who was kindly referred to me by Dr. William MacPherson, was 33 years of age, being a painter by occupation, and born of English parents who were both of a decidedly nervous temperament, while the affected person possessed a disagreeably nervous manner. His parents, who had both suffered from what he termed a most chronic skin disease, had lived to a ripe old age, but, unfortunately, he could not state the character of this cutaneous

affection. The lesions existing in the present person occupied the greater portion of the body, being larger upon the anterior and posterior portions of the trunk, and smaller upon the face and extremities. Those upon the trunk, both anteriorly and posteriorly, were scattered in great profusion, and were about the size of a half pea, being discrete in most instances but aggregated in small groups in others, showing no tendency to coalescence but presenting the characteristic linear appearance of the affection. Upon the face and extremities the lesions did not become larger than a pin-head, although they were closely aggregated but yet each distinct in itself. Itching was intolerable, while the nervous phenomena were most depressing. Under the use of mercury binioidid in the dose of $\frac{1}{4}$ of a grain thrice daily, the patient recovered after about five months' treatment. Locally he was ordered the "liquor carbonis detergens," (emulsion of coal tar and soap-bark) in the strength of 2 drams to the ounce of water, with good effect.

Nine years later, on May 25, 1896, this young man again appeared. At this time he presented lesions in great profusion—being again as quickly relieved with the same form of medication. Since the above date the man has appeared frequently at my service for inspection, but at his last visit, in March, 1897, he had not shown any tendency to an outbreak, and was told to return after one year.

CASE II.—J. J. was referred to my service by Dr. William Sher. This man was 45 years of age, being a native of County Derry, Ireland. He was always of the most robust constitution, and emigrated to this country at the age of 12 years. The condition for which he sought advice began about two months before his visit to the clinic, but did not give him much inconvenience until the last two weeks, when it commenced to itch violently over the affected areas. The lesions were scattered in groups, and situated peculiarly upon the back and shoulders in this wise: One group upon each scapula occupying the spine, one each upon the lumbar regions, and one upon the uppermost and outermost portions of each shoulder.

They were small in size, being possibly about the diameter of a pin head, and showed the characteristic square aspect of lichen planus lesions with the linear streaks plainly visible upon their summit. Under the use of arsenous acid, in the dose of $\frac{1}{3}$ of a grain thrice daily, the man was entirely well in three weeks. Owing to the intolerable itching in this case he was ordered to wash with a lotion containing 3 drams of carbolic acid to the pint of water.

CASE III.—H. A. W., sent to me by Dr. John B. Deaver, was a clerk in a railroad office, being born of Irish parents, both of whom had robust constitutions, and never showing, as far as he was aware, any skin disease. The condition had been of three months' duration. The lesions occupied the anterior portion of the body only, being scattered as follows: In great profusion upon the chest and abdomen, covering the superior portion of the penis (but not affecting the scrotum) and running down upon the anterior part of both thighs. Itching was present to an intolerable degree only when the patient was in bed. Under the inunction of an ointment containing 2 grains of mercuric chlorid (and later 3 grains) to the ounce of petrolatum, the man was entirely relieved in about three weeks. Other than this external measure he was only given some saline mixture. After the disappearance of the main condition there were no pigmentations.

CASE IV.—Charles B., 24 years of age, and a painter by trade, was referred by Dr. W. O. Xander. He was born in Sussex, Delaware, of parents who were also Delawareans. The condition for which he was brought to the clinic had been in existence for one year. The lesions were situated upon the anterior aspect of the right thigh, and consisted of a group of about one hundred, being closely packed together, although positively distinct. They were raised about two lines above the surrounding healthy areas, being of a dull red color, and slightly scaly at their summits, with depressions between them. The itching had become much worse during the past three months, and the patient had been obliged to leave work at times, owing to the intolerable nervousness which had been produced by it. This young man was given extract of cantharides, in the dose of

$\frac{1}{2}$ grain, thrice daily, and at the end of seven days he had improved greatly. For the itching, he was ordered a mild carbohc wash. From the effects shown after one week's treatment, I really believe that a good result would have been seen in this case, but, unfortunately, he did not return after the second visit.

CASE V.—Mrs. B. was sent to me by Dr. A. W. Watson. She was 24 years of age, and had no children. The disease was of two months' duration. No similar cutaneous affection had been witnessed in any member of her household, which consisted of both her parents and a brother and sister. The lesions at her first visit occupied most of the body surface, and were observed as the usual irregularly shaped, rounded or oblong papules, showing the shining and glossy appearance of their summits, with the peculiar drawn character noted in the linear streaks across all of the lesions. Upon the arms and legs, the lesions were discrete over the greater portion of the region, but at some points they had aggregated themselves into large patches although there was no coalescence. Upon the trunk, both anteriorly and posteriorly, they had aggregated over the greater part, while at irregular diverse regions they were congregated in pairs and triplets with all the characteristic appearances of the condition. In the greater majority of instances, the lesions were pin-head sized, or smaller, while at points several had reached the size of a copper penny. The itching was intolerable at all times, while the effect upon the nervous system was of the most deplorable character. Under the use of arsenous acid internally, she became entirely well after several months of persistent treatment. Beginning with $\frac{1}{10}$ grain doses, I found it necessary to increase gradually until the patient was taking $\frac{1}{2}$ grain thrice daily for three months. In few cases will it be found advisable to use so large a dose, and it should never be given without the most extreme care for fear of the dire consequences that may arise. Externally, mercuric chlorid (3 grains to the ounce of petrolatum) was employed, and later liquor carbonis detergens, 1 dram to the ounce of water, increased to full strength. This patient was seen about four months after all disagreeable effects had disappeared, and upon making an examination of the previously diseased areas I found a great amount

of pigmentation, some of which was undoubtedly due to the disease itself, although it is possible that the most was due to the arsenic used in treatment.

In concluding my remarks I would draw attention particularly to the effect of the mercury biniodid in Case I, and that of the extract of cantharides in Case IV, because both of these forms of treatment differ from that usually advised, but both show a result which is as decided as that resulting from the use of arsenic, and consequently are worthy of a further trial. I really believe that both of the drugs mentioned have a field of usefulness in this affection, and hope that it may soon be proved by the report of other cases.

Selection

"PHILANTHROPY" INDULGED IN WHERE IT COSTS NOTHING.

A SUBSCRIBER forwards us the following letter, clipped from *The People*, May 2, 1897:

WASHINGTON, D. C., April 20 —Late!y many of our dear Washington middle-class [*sic*] "philanthropists" have been "greatly moved" over the terrible suffering of a few animals during vivisection, and Congress has been appealed to to pass a national law prohibiting it. Now, I was born upon a farm, and lived there until I was sixteen. There is no more horrible suffering than that which an animal endures during castration. I remember every spring I had to assist in castrating all the young animals. I would sit down on a box with a struggling little lamb in my arms, place its rump on the box, get its head under my arm, take a hind leg in each hand and draw them up, while the operator with a sharp knife cut off part of the scrotum and then cut out the testicles. Not satisfied with that, it was his custom to sprinkle the bleeding parts with salt to keep the flies away. I can feel to this day those lambs struggling to get away. I can hear to this day their pitiful bleating as their bodies were cut to pieces. And why was all this torture? For no other reason than that farmers had discovered that a wether lamb fatted better than a buck lamb. The lamb that fatted best brought in the most money, and the most fiendish torture that a man can inflict on an animal was practised for the sole reason that there was money in it.

And that practice of castrating animals is one of the regular tasks of the farmer in the spring and early summer. They go to the butchery with as little concern for the suffering of the animal as they would feel for the suffering of saw logs in the clutches of a gang saw. N. N.

Current Literature

REPORT ON OBSTETRICS.

BY E. P. DAVIS, M.D., and W. H. WELLS, M.D.

When Shall We Use the Forceps?—W. E. Park, M.D. (*American Gynecological and Obstetrical Journal*, February, 1897). (1) The indication for the use of forceps rarely or never arises during the first stage of labor, before the membranes have been ruptured. (2) It may be necessary to employ the forceps during the first stage, when the waters have escaped on account of the increasing exhaustion of mother or child. (3) It is proper to apply the forceps during the first stage of labor for accidents, whenever they may arise, notably in certain cases of convulsions, placenta prævia, and prolapse of the cord. (4) In the second stage it is proper to apply the forceps one half hour after the head ceases to advance, when there is no disproportion between the passage and passenger. (5) When, however, there is a tight fit between the child and the birth canal, the use of the forceps may be delayed. This delay should rarely exceed two hours after the head ceases to advance. (6) If the head is engaged, and neither advances with the pain nor recedes after the pain, the forceps should be applied promptly.

The Causation and Treatment of Secondary Puerperal Hemorrhage.—A. Routh, M.D., (*British Medical Journal*, October, 1896). There are two chief varieties of this trouble; the concealed, and the external hemorrhage. As causes, there are: uterine inertia suddenly induced by emotion or fright, partial detachment of a piece of retained placenta, detachment of thrombi. Ergot given before the birth of a child may lead to irregular contractions of the uterus and concealed hemorrhage. In the concealed variety, the hand should be introduced into the uterus, all clots removed and ergot given hypodermically together with hot intra-uterine irrigations. External hemorrhages require curettement followed by packing the uterine cavity with aseptic gauze.

Comparative Results of Cesarean Section, Symphyseotomy and Premature Labor.—Tarnier (*Journal de Sages-femmes*, November, 1896). The following statistics

collected by the author, show in a concise manner the results obtained in the several operative procedures:

		Maternal mort'y, per cent.	Fetal mort'y, per cent.
Frommel—Cesarean section	132	9	10.6
Morisini—Symphyseotomies	241	11.6	22.8
Neugebauer—	178	11.1	19
Pinard—	49	8.6	10.2
Tarnier—	124	9.6	25.8
Pinard—Induced premature labor	100	1	33
Braun—	54	0	38
Leopold—	45	2	33.4
Tarnier—	116	0	26.7

A Long Pregnancy.—E. F. Ross, M.D. (*Australian Medical Gazette*, July, 1896). The patient pregnant for the fourth time, her three previous pregnancies were uneventful. In this pregnancy, fetal movements were first felt September 30, 1895, recognized by the author October 6, 1895, and noted weekly until her delivery, May 20, 1896. As fetal movements cannot be recognized by the examiner before the third month, at least 84 days must be added, which makes the period of her gestation 311 days. Menstruation persisted for three months after fetal movements appeared. The delivery was accomplished by artificial dilatation of the cervix and a high application of the forceps under chloroform. The fetal membranes were very thick; there was very little liquor amnii. The placenta was adherent. The child was a female, weighed 10 pounds. The posterior fontanelle was closed, the anterior was very small.

The word Hippopyrrhine is a combination of ἵππος, horse, and πυρρός, red. The last word has for its French equivalent the term *roux*, which is an ingenious compliment to Monsieur Roux, the pioneer in France of the anti-diphtheritic injection. Dr. Badour would therefore "hippopyrhinate" children suffering from diphtheria rather than inoculate them with diphtheritic antitoxin.—*Medical Record*.

Phenazone Mandelate is a newly discovered combination which is said to have all the therapeutic properties of phenazone but without its injurious action upon the heart. Mandelic acid is obtained by the action of prussic acid and hydrochloric acid upon benzaldehyd.

THE PHILADELPHIA POLYCLINIC

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PHILADELPHIA, JUNE 19, 1897

THE REFINING INFLUENCE OF THE ANTI-VIVISECTION AGITATION.

LAST year, the Marine Hospital Service was called upon to test the value of the cobra venom as a remedy against cholera, it being claimed to be an infallible remedy long used among the mountain tribes of India. Surgeon Kinyoun was detailed to make some experiment with it on animals, and, this fact being mentioned in the daily papers, he began to receive anonymous letters, two of which he publishes in the report of the supervising Surgeon-General for the year 1896. We quote one of them. They are enough alike, to have come from the same source, and we do not like to believe that there are many who would indulge in such malevolence. They make interesting reading, in connection with the familiar charge that experiments upon the lower animals tend to destroy the sympathy and benevolence of the experimenter.

One is naturally led to wonder what is the connection between the moral and intellectual condition of the writer of the following communication and the antivivisection agitation. Is it one of cause and effect? If so, which is cause, and which is effect? Does the persistent indulgence in

misrepresentation and vilification develop this form of moral monstrosity? Or, does this peculiar form of monstrosity find the antivivisection movement an attractive and congenial opportunity for the display of its characteristics?

"You vile, merciless, rascally fiend! I judge from your name, you are a nasty Frenchman, with no heart and without a God. If you think you will be permitted to set up a place of torture in this country for poor animals, you are vastly mistaken. You will have to betake yourself to the vile and godless country from which you came, or to the hell to which you are destined; and if you wish to indulge in such fiendish performances when you reach the latter place, which I hope you will soon, unless you repent, you will have an opportunity, with kindred fiends, of torturing yourself through the endless ages of eternity. I am a woman, who despises brutes and all brutal actions."

It might be hard for a "vivisectionist" to believe in the genuineness of such letters, to believe that any man or woman would freely indulge such vindictive feeling toward any living being, even a fellow-man; but, unhappily, expressions of similar malignity have so often found their way into print, over the signatures of antivivisection agitators, that the wish to intimidate or to annoy an investigator seems the most plausible explanation of such anonymous attacks.

It must not be supposed that even the most persecuted worker in experimental medicine believes that all antivivisectionists cultivate this kind of feeling, or would descend to such coarse expression of it. But can we not properly ask those, who give the antivivisection movement respectability, to carefully consider how far such utterances reveal love of brutes, with willingness to undergo self-sacrifice for them; and how far they represent love of one's own opinions, and associations, and purposes, with willingness to sacrifice somebody else to them; and hatred of any one who would prevent this latter sacrifice?

E. J.

In the Clinics

Under the Editorial Charge of DR. OAKLEY W. HERMANCE.

MILIA and *sudamina* are better treated by means of *electrolysis* than by other methods. Dr. Cantrell said that the proper manner was to insert the needle longitudinally to the lesion, and after allowing the current to pass for some few seconds, until the usual frothing took place along the needle, insert it at some other point upon the same lesion.

* *

DURING the past year Dr. Wells has been making a number of experiments with the Walker-Gordon laboratory method of *modifying milk for infant feeding* both in the obstetric clinic and in his private practice. The results of this method have been most satisfactory, the only drawback being the expense which, although not very great, cannot be borne by the very poor. Modified milk from the laboratory can be had in bulk for about 18 cents a day for 6 feedings of from 4 to 6 ounces each. Put up in nursing tubes ready for use the cost will average about 40 cents a day for the same quantities.

* *

DR. WOODBURY reports from Dr. Vansant's clinic a case in which the *habit of snoring and mouth breathing* was cured by removal of the pharyngeal tonsil. A man 24 years of age, employed as assistant steward in a prominent hotel in this city, had acute middle ear inflammation, with ruptured membrana tympani, and rather free discharge from both ears. Dr. Woodbury discovered hypertrophy of the pharyngeal tonsil, a large mass of adenoid growth nearly filling the naso-pharynx and obstructing the posterior nares. The patient had been a mouth-breather for as long as he could remember, and was an inveterate snorer at night. He had also been subject to repeated attacks of sore throat and had had an attack of ear-inflammation of the same character as the present about a year previously. He also was found to have a strongly deflected septum with a horizontal ridge impinging upon the left inferior meatus, the result of a fracture of the nose from a fall, when a child. He had had an operation for removal of a portion

of the most prominent part of the septal ridge, in Chicago, some eight months before, by a specialist, according to his account, who had promised that the operation would cure him of his habit of mouth-breathing, but who neglected to examine the naso-pharynx. No benefit resulted, to the patient, from the operation. The ear discharge under appropriate treatment ceased at the end of a week, and the patient was brought to the laryngological clinic for the removal of the adenoid tissue and the correction of deformity of the nose by refracture of the septum. Dr. Vansant removed the adenoids with Gottstein's currettes, after preliminary cocaine anesthesia and without general anesthesia. There was very little bleeding, and it ceased spontaneously. The patient stopped snoring at night and greatly enjoyed the novel sensation of nasal respiration. In the course of the three weeks following the operation he gained fifteen pounds in weight, and this was not due to any change in his habits of living, for he continued at work performing the exacting duties of his position. The proposed operation upon the crooked nose is chiefly for its esthetic effect, and this has been deferred for the present as the patient had to leave the city on business.

Society Proceedings

THE PHILADELPHIA COUNTY MEDICAL SOCIETY.

(Continued from p. 218, Vol. VI, No. 21.)

DR. JOSEPH PRICE presented a paper on

"SOME OF THE COMMON CAUSES OF MORTALITY IN ABDOMINAL SURGERY."

The morale of the patient has always much to do with the successful termination in all cases of surgical interference. It is very essential that the patient should be bright, cheerful and hopeful. The patient's trouble should always be presented to her with great frankness and tact, in the simplest and most intelligible forms of expression. There should be no deception, no use of words exciting unnecessary alarm. There are certain offensive expressions that exercise a very vicious influence over the patient, such as: "You

have a tumor; it will have to be cut out," "You will have to be opened," "Madam, you will have to go under the knife." Inspiring and sustaining a healthy and hopeful morale is a duty with both nurse and surgeon. So-called shock is, in a majority of cases, the result of, or is caused by, hemorrhage. Fatal shock may be caused by the enucleation of a densely adherent tumor over the large ganglions of the sympathetic nervous system. The tendency to this can be noticed in a more or less marked degree while the operation is in progress, by failure of pulse, sighing, irregular respirations and the appearance of the patient, which is that of impending death. There is no question but that many of the cases put back to bed after operation, in a moderately good condition, gradually sink and die in from twelve to sixteen hours from hemorrhage, and not from so-called surgical shock. Shock is less frequent than formerly. It is avoided through our less barbarous methods of treatment. When it occurs, it is largely due to prolonged operations, prolonged anesthesia, the violence of operations about vital parts, excessive use of ligatures and sutures. Occasionally we read reports of cases requiring forty or fifty ligatures to control hemorrhage. The same operation in the hands of some other operator would probably have required but one. The anesthesia and the operation are prolonged in the application of ligatures. Excessive hard tying causes great pain and adds to the shock. A hot irrigation toilet, when filth and debris exist, speedily cleans and favors reaction. The hot water is taken into and stimulates the circulation. Rapid operation is an important factor. Tolerant as may be the peritoneum, there is a limit to the impunity with which it may be exposed without risk. Chill adds to shock, and an unclean atmosphere to danger of infection and septic peritonitis.

The chances of infection and hernia are less with a small incision. The length of the incision must be regulated by the size and the character of the growth. In cases of the removal of hard, irreducible growths, the incisions are necessarily large. Our mortality is increased by not taking into consideration other organs than the diseased one, or the special trouble for which we operate. There may be diseased lungs, heart or kid-

neys, the history of some inherited trouble, and other important considerations. It is needless to name those cases in which the risk is greatest, the mortality high. One of a group calls attention to facts associated with others. We know that puerperal suppurative peritonitis commonly results fatally, especially if more is attempted than irrigation and drainage. Extirpation of the so-called septic uterus is uniformly fatal.

Curettage practised after abortions and fancied abortions is commonly followed by violent septic peritonitis. Section, irrigation and drainage will save life under these circumstances. General tuberculous peritonitis results in death unless surgically treated. Section, with the freeing of all adhesions and drainage or no drainage, results in the majority of cases in cure. Now, as always, I place special stress on irrigation and drainage, and urge the utmost refinement of every detail of the surgery. The most *unsurgical of all practices* is that of "reliance upon the ability of the peritoneum and general system to eliminate infectious matter," without the aid of drainage.

Such teaching is positively bad, whether carried on in our schools, private clinics or from the chairs of our medical societies.

To patient, physician and surgeon the nurse's office is one of pre-eminent importance. The practitioner, general surgeon and those following special lines of surgery, have learned from many disappointments and painful experiences, the extent to which ignorant, careless and inexperienced nursing have contributed to their mortality. The matter is one of equal interest to physician and surgeon. Societies, scientific and philanthropic, have greatly improved the personnel and education of our nurses. There is much yet needed to elevate the standard of nursing to what it should be. Too many attempt the office with little elementary education, some without the least pretense to a common-school education. There is needed culture combined with natural intelligence and aptitude. Nurses are sometimes socially uncongenial, unfortunately possessing those peculiarities of disposition that render them positively offensive to patients. Nurses should be impressed with the responsibility and dangers incident to their work, that theirs is the care of a life, in maternity cases, of two

lives, and that everything associated with the welfare of their patients should be studied with an intelligent interest. They must have a general inclination to forbearance and everlasting patience, must be wise and before all cheerful. The doubt and fear that undoubtedly find place in the patient's mind prior to the operation, should find no confirmation in the manner of the attendant. The circumstance is no matter of gayety, yet there must be suggested to the patient a confidence and support in the persons of the physician and nurse. The progress of disease cannot but develop distress, mental and physical, in the surmounting of which lies the art and utility of the nurse. This art is not all a gift. So much strangeness and uncertainty surround life that the smallest bodily ills receive the most serious attention, and become often great afflictions through exaggerated thought. This state the nurse can aggravate through unguarded speech or conduct. It is her duty to have a solicitude independent of affection and ties of kinship. Our subjects are usually depressed in spirit by reason of their malady and the constant consideration of their condition; and large and difficult is the office of the nurse in removing this depression. Order and taste in the apartments, the pleasant appearance of the nurse, and her evenness of temper are of course well-understood elements in the sufferer's welfare. But beyond all this, there must be a considerateness of speech on the attendant's part that shall serve without fail to divert attention from the ailment. Conversation should be limited, and the nurse's words carefully judged and modified for the character of her subject and growth of confidence. They should always be words of encouragement and hopeful stimulus. There should be little or no talk about disease or operations. The idiosyncracies, the eccentricities of the patient should be noted, and the peculiar habits and the trend of thought studied and directed in healthy and hopeful channels. That the nurse should in morals be without even the suspicion of blemish, in speech, in entire person, clean, cannot be questioned. There is nothing so subtle in its infective, septic influence as moral filth, whether in physician or nurse. The nurse must be trained, thoroughly trained, and must have much of a surgeon's courage to deal with grave con-

ditions without feeling or manifesting alarm. Repeatedly I have heard physicians say, after witnessing an operation: "Doctor, there is little chance for that woman," while the experienced attending nurse made no sign of any other confidence than that of a successful result. She should do everything cleanly, quickly, deftly and not wear the patient out by her sleepy, slow, clumsy motions. Nursing must be something more and better than merely mechanical; it must have brains, educated hands, the quick intelligence and spirit to appreciate and respond quickly, quietly and intelligently to all the wants and necessities of the patient. The ranks of our nurses have been too largely recruited from that class who on retiring to bed throw their clothes on the floor and kick them under the bed.

There is no means of determining the percentage of mortality caused by dirt, uncleanness, dirt somewhere about the person, the hands, the fingers, the clothes, instruments, the fine English cut or patriarchal beards of the operators, about the room and its appointments, the bed and its clothing. Antisepsis cannot correct the mischief; it in itself is not always harmless.

Too much has already been said in favor of the doctrine of antisepsis, and too little urging the practice of asepsis. The surgeon who has reduced and kept his mortality low, must acknowledge his debt to scrupulous care as to aseptic conditions. These are obtainable conditions. We repeatedly have coming into our hands cases in which the chances for and against recovery are very evenly balanced, and but little dirt or that with septic taint will turn the balance against us. In abdominal operations the surgeon should commence clean, wash out clean, and drain. The drainage-tube will keep the general cavity of the peritoneum free from all septic and abnormal contents, and decomposing ooze. We know that for those extraneous conditions producing septic infection, the surgeon and the nurse are largely responsible. We further know when septic infection is carried into the peritoneal cavity or arises from some internal cause, that unless it is promptly and thoroughly dealt with, the patient dies. We know that patients die when we depart from certain well-settled rules.

THE PHILADELPHIA POLYCLINIC

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THE HOME STUDY OF OPHTHALMOLOGY.

V.—THE OPHTHALMOSCOPE.

BY EDWARD JACKSON, A.M., M.D.

Professor of Diseases of the Eye in the Philadelphia Polyclinic, Surgeon to Wills Eye Hospital, Philadelphia.

WHILE to recognize opacities of the cornea, lens, and vitreous humor, any kind of perforated mirror is sufficient; every wide-awake and progressive physician may well have an ophthalmoscope and be able to use it, and gain some practical acquaintance with the facts that it reveals. Such knowledge will enable him the better to judge of the importance of the ocular symptoms that mark the course of general disease. One who has encountered the difficulty of distinguishing between a normal and a hyperemic optic disk, and between the later and an inflamed disk, and who has seen the optic neuritis often caused by eye-strain, will be far better able to judge of the importance of the ophthalmoscopic symptoms of neuritis, even though he chooses to refer his patient to a specialist for minute examination and expert opinion.

But the general practitioner need not get one of the more elaborate and expensive forms of ophthalmoscope; for these contain long and elaborate series of lenses, not only utterly useless to one not using the instrument daily for the exact measurement of refraction; but actually inconvenient when the instrument is employed to reveal the condition of the eye-ground.

The instrument suggested and habitually used by the writer has a lens series including the 1, 2, 3, 4, 5, 6, 8, and 15 D. convex;

and 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 15, and 30 D. concave. A more extensive series of lenses cannot possibly be of service to one not especially engaged in refraction work. A series containing about these lenses will prove most useful, there being more cases of high myopia and higher degrees of myopia than of hyperopia; while it is more important to have lenses correcting the high degrees of myopia, because for hyperopia the lens series can be practically extended by drawing the lenses away from the patient's eye.

Either the above instrument, known by the writer's name, or the Loring single disk ophthalmoscope (not the more "complete" Loring "quadrant" instrument), or the Knapp's ophthalmoscope will be found of greatest service. Such instruments, which can be bought for five to ten dollars, will give better service than anything more elaborate and costly.

It is, however, of great importance that the instrument, though simple in plan, should be well-made. In choosing an ophthalmoscope the point to be first looked at is the sight-hole. In most of the ophthalmoscopes on the market, this is made too large, because it is made for the expert to measure refraction with it. The larger sight-hole permits an error of refraction to cause the greater blurring of the ophthalmoscopic image. This is an advantage where slight errors of refraction

tion are to be detected by it. But for the examination of the fundus we want the blurring reduced as much as possible, and on that account a small sight-hole is to be preferred. A small sight-hole also renders more easy the illumination of the fundus when the pupil is small; and reduces the annoyance caused by the light reflected from the surface of the cornea, as explained in the PHILADELPHIA POLYCLINIC of February 20, 1897. In most ophthalmoscopes the sight-hole is made from three to four millimeters in diameter. About two millimeters in diameter is a better size when it is to be used to inspect the posterior portions of the eye.

The sides of the sight-hole should be free from reflections. To test as to this point the room should be thoroughly darkened and the instrument held close to the lamp-flame, or other source of light, in such a way that the light shall fall strongly upon the margin of the sight-hole. Under these conditions looking through the sight-hole, any point not properly blackened will be noticed by its bright reflection. When the eye is brought close to the instrument, as in using it, such a reflection appears as a luminous cloud occupying the sight-hole; and partially obscuring everything that has to be seen through it. The most perfect sight-hole is obtained by a method to which attention was recently directed by the writer, (*Ophthalmic Record*, June, 1897,) in which the glass is not cut through; but the silvering is removed from the back of the mirror, and a thin piece of glass, the back of which must be as convex as the front of the mirror is concave, is cemented back of the silvering so that the sight-hole can be kept entirely free from dust at its margins.

The mirror is usually concave, with a focal distance of six or eight inches, but might be made more concave with advantage. The mirrors commonly employed are

a compromise between the requirements of the direct and of the indirect method of ophthalmoscopy. For the direct method, now almost universally employed, the mirror of three or four inches focal distance is more generally serviceable.

The mirror should be so mounted that it can be made to face to the right or to the left about thirty degrees. Some of the tilting mirrors furnished do not turn this much. Then the mirror should always be mounted so that it will stay wherever it is placed. A mirror that is continually changing its angle when it happens to get in contact with the patient's brow, or even without coming in contact with anything, and which is thus flashing the light off the eye, just at the moment, perhaps, when a satisfactory view of the fundus has been attained, is a great annoyance. In buying the instrument tilt the mirror from side to side; and see that it moves smoothly, but is steady wherever it is placed, and requires some little force to move it.

It is also an important point to have the lenses stop accurately behind the sight-hole. This is secured in the instruments mentioned by a small spring acting on the lens-slide, or disk. The lenses should be moved only with some little force, required to overcome the spring and start them, and should be stopped at the proper point.

In choosing the instrument the perfection of every mechanical detail should be taken into account. The smoothness of the movement of its movable parts, the perfect steadiness of its joints, especially of the screw joint between the handle and stem of the instrument, are of great practical importance. Perhaps no machine, except the compound microscope, is more dependent on mechanical accuracy for its usefulness. A very slight "lost motion" or false movement may interrupt the examination at a critical point, causing delay or failure.

Summary.—In choosing an ophthalmoscope, it is wise to select a simple instrument, but well made; with such a lens series as has been mentioned, a mirror having a focal distance of three or four inches, and a sight-hole two millimeters in diameter. Then, in choosing the particular instrument, the sight-hole should be tested for reflections; the turning of the mirror for smoothness and steadiness in any position in which it is placed; the movements of the lenses for smoothness and accurate retention with the center of the lens opposite the center of the

sight-hole; and each joint and screw should be examined to see that it properly does its work.

With an ophthalmoscope suited to the work, and a few hints as to practical details in using it, which will be taken up in the next of these papers, the young graduate who is spending his time industriously waiting for practice, even though entirely separated from large clinics, can, with the greatest profit, set himself to study the art of ophthalmoscopy.

HYSTERIC CLONIC SPASM OF THE WRIST.¹

BY DAVID RIESMAN, M.D.

Adjunct Professor of Clinical Medicine in the Philadelphia Polyclinic, etc.

IN a former issue of this journal² I described some examples of hysteric disturbances of the respiration; in the present instance I wish to report a case of clonic spasm of the flexors and extensors of the wrist, in all probability depending on the same disease, namely hysteria.

Mrs. T. L., a fairly intelligent Russian woman, 40 years of age, was sent to my nervous clinic at the Northern Dispensary by Dr. Fleisher.

She has had six children and two miscarriages, and was in good health up to the birth of her second child. The family history is negative.

The second labor, which occurred fourteen years ago, was very difficult; it was preceded by severe hemorrhage, and was complicated, it appears from her narrative, with placenta prævia. On the second day of her lying-in the patient was frightened by a fire that had broken out near her home, and on the following day was seized with generalized clonic spasms of the extremities, which persisted for five days. At the end of that time the movements ceased in all the members except the right arm, in which they have continued with intermissions

until the present day. She was treated in Russia principally by baths, through which the movements were controlled for periods varying in length from six to nine months. Six years ago she came to America, and since then the spasms have been much worse, scarcely ever subsiding for more than fifteen minutes when she is in repose. During manual work they always cease. They also abate or disappear entirely at meals, especially when she feels well; when fatigued or indisposed, they may interrupt her while she is eating, and on one occasion she scalded herself with hot tea which the jerking of the arm had caused her to spill. As already stated, the movements are well-nigh constant when she is sitting quietly; they are intensified when she is under observation and during excitement. They cease during sleep.

Since the existence of the spasm the patient has also been troubled with palpitation of the heart, which usually accompanies the movements and subsides when they do.

The patient is very excitable; her sleep is poor—as soon as she lies down she experiences a feeling of anxiety and dread, and the little slumber she snatches is troubled by unpleasant dreams. In appearance she is well-nourished, but pale, and habitually has an expression of suffering in her countenance.

¹ Part of a paper read at a meeting of the Philadelphia Neurological Society, at which the patient whose case is here recorded was also shown.

² PHILADELPHIA POLYCLINIC, February 13, 1897.

There is a double murmur^s at the aortic cartilage, the systolic one being also audible in the vessels of the neck, while the diastolic sound is transmitted over to the left and down toward the apex. A very distinct capillary pulse is present, and Corrigan's phenomenon is fairly well marked.

But the most striking feature presented by the patient is the constant rhythmic flapping of the right hand, produced by a rapid alternating flexion and extension of the forearm muscles. The movements in the beginning are small, but rapidly grow in amplitude until the entire arm is shaken by their force. When the hand is resting upon anything, as the knee, a loud, slapping noise is made.

The movements very much resemble the flapping of a bird's wing, and *flap-wing spasm* would not, I believe, be an inappropriate designation for the condition.

When the patient is agitated the movements increase in intensity, and I could bring them on when they had momentarily ceased, by gazing intently at her hand, or speaking about her in such a way that she would know she was the subject of conversation. I have, unfortunately, no record of the rapidity of the movements. Not having heeded that point at her first visit, an unexpected improvement deprived me of further opportunity. Sensibility to touch was not disturbed.

On account of fugitive pains in the muscles I prescribed a mixture of potassium iodid and sodium salicylate. In a few days the patient returned, her condition much ameliorated, but she was suffering from iodism, and complained of weakness. The dose of the mixture was reduced one-half, and a pill of iron, quinin, and strychnin ordered.

On her third visit the spasm had nearly ceased, and since then—September 15, 1896—she has been practically free from it, and considers herself cured. No one was more astonished at this result than I, in view of the fact that the affection had existed fourteen years and for the last six had to all intents and purposes been continuous. Certainly, the medicinal treatment had nothing to do with the unexpected outcome, which can only be ascribed to suggestion.

The nervous phenomena noted above, especially the unpleasant dreams, are, I believe, in a large part explained by the cardiac lesion.

The patient has consulted me frequently since for ailments referable to her cardiac lesion; the arm has remained well.

A localized spasm of the kind described, might either be due to some distinct organic lesion of the nervous system, or it might be of the type we are wont to call functional. A tumor, a patch of sclerosis, poliencephalitis, or porencephaly, involving the motor area of the brain, or a lesion in or about the internal capsule (cf. posthemiplegic chorea) might produce abrachial spasm.

Of spinal diseases capable of provoking it, we may mention tumor of the cord or of the meninges, and a sclerotic or myelitic focus. The long duration of the spasm, its unchanging character, its rapid disappearance, as well as the absence of other grave symptoms, speak against the existence of any such coarse lesion as is implied in the foregoing series. We are forced to consider the condition a neurosis, and its general course and termination accord best with the interpretation that it was due to hysteria.

Current Literature

BACTERIAL PATHOLOGY.

BY M. V. BALL, M.D.

The Gonococcus in Pure Culture from Gonorrheal Joint Inflammations.—(J. Jundell, *Archiv f. Dermatologie und Syphilis*, Vol. xxxix, No. 2.) The writer was able to demonstrate in two cases the gonococcus in the exudate obtained from a gonorrheal tendo-vaginitis and to cultivate it on culture media, and then to produce gonorrheal urethritis by inoculation of a healthy urethra with the culture so obtained.

The culture media used was composed of ascitic fluid, to which two parts of neutral meat pepton agar had been added. (Agar $3\frac{1}{2}$ per cent., pepton 5 per cent., glycerin 2 per cent.)

The blood of both patients gave neither microscopic nor cultural results. The exudate taken from the tendon sheath of the P. tibial muscle, which was inflamed, showed

under microscope only a few gonococci, but one drop of the pus was spread over culture plates and in 48 hours there were numerous gray, gelatinous, strongly refractive colonies which, when examined under the microscope and stained according to Gram, proved to be gonococci.

Inoculation was then practised with the thirteenth generation of this culture, by smearing a small portion on the fossa navicularis of a youth who was afflicted with a cerebral tumor. In twenty-four hours after the inoculation the mucosa was very much inflamed and a drop of yellowish pus was found at the meatus, which contained gonococci, and which gave a great number of colonies on the culture medium.

In a second case suffering from gonorrheal arthritis, the exudate from the knee showed no gonococci microscopically, but gave decided cultural results. Inoculation was made on the healthy urethra of a syphilitic patient, and in 24 hours a urethritis developed, which responded to microscopic and cultural tests.

Gonococci have now been found in nearly all the metastatic gonorrheal inflammations, although culture experiments have so far failed with the endocarditic exudate.

Jundell has not been able to cultivate the germ from the blood, though he does not doubt the accuracy of Thayer's experiments, who claims to have done so.

He considers the gonococcus analogous to other pyogenic organisms, and it only remains to cultivate the germ from the endocarditic exudate to fully establish this analogy.

The Serum Test.—(Widal and Sicard, *Annales de l'institute Pasteur*, May 25, 1897). The whole of this number of the *Annales*—78 pages—is given over to an article by Widal and Sicard on the serum diagnosis of typhoid fever. The writers review the literature, the history and the methods of the test, and then give the results of their own large experience. It is the most exhaustive and complete study of this new discovery yet made. The points of interest not heretofore noted by us (see this Journal, Aug. 1, '96, Nov. 14, '96, Dec. 26, '96, March 13, '97, and May 29, '97), are as follows:

Dead bacilli of typhoid have the power of agglutination and, even when they have been preserved in formalin for 5 months, they give the same reaction as the young and liv-

ing bacteria. Thus the typhoid bacillus can be kept on hand in the laboratory, preserved by formalin just as a chemical reagent and ready for use when needed.

The agglutination is, according to these writers, not a vital phenomenon but is a power resident in the dead protoplasm. The bile, urine, milk, and tears show the reaction similar to the serum. The seminal fluid and saliva did not show it.

Tests with albuminous urine prove that the agglutinating substance does not require albumin as a vehicle. Albumin has been eliminated by the body that did not contain the substance, whereas the serum showed it, and the fact that it is found in tears and in the urine free from albumen shows that it can be eliminated without albumen.

The power of agglutination varies from day to day in intensity and in different individuals, and has no direct relation to the height of the fever.

Very interesting diagrams and charts illustrating this are shown. Everything depends on the measurement of the power. The writers commence with a 1-10 dilution and then gradually increase the dilution up to 1-50. The test is to be used like a quantitative test for albumen.

The conclusions are that a negative result obtained with the serum of a person suspected of typhoid furnishes a probability against the disease, but it is only a probability, especially if the test is made in the earlier stages of the disease.

The examination should be repeated a few days later; if a negative result later in the disease the probability against the disease is greater.

A positive reaction obtained according to the rules of measurement indicated, should be considered as a certain sign of typhoid.

The Non-Transmission of Typhoid Fever through the Air.—(Edward Germano, *Zeitschrift f. Hygiene und Infect.*, Vol. xxiv, part 3.) A very careful study of the typhoid fever bacillus shows that drying kills it so rapidly that its transmission through the air so as to infect a person is almost an impossibility. It requires some moist material to keep it alive, and consequently infection usually results through the food or clothing becoming contaminated and this contaminated article reaching the lips.

Society Proceedings
PHILADELPHIA COUNTY MEDICAL SOCIETY.

MAY 12, 1897.

DR. H. AUGUSTUS WILSON presented a paper on

PORTABLE DOOR ATTACHMENT FOR APPLYING
SUSPENSION.

The great advantages to be derived from suspension in the many cases susceptible to its use are seriously neutralized by the inconveniences of the apparatus heretofore employed. The value of suspension in the diagnosis of spinal lesions has long been recognized, and its use as a therapeutic measure would be more frequently resorted to at the residence of patients but for the difficulties referred to.

The arrangement that I suggest, which is an adaptation of the painters' "jack," is intended to overcome the disadvantages of the cumbersome tripod, and the various fixtures that are screwed into the walls, ceiling or woodwork. Its use does not tend to terrify the patient by its gruesome appearance, nor does it leave defaced paint or plaster as reminders of the ordeal. The simple construction of the bracket renders easy its attachment to any convenient door, and its speedy removal leaves no trace of its use.

In the first illustration the bracket is shown in use, with the door closed, so as to avoid drafts upon the patient, while the second illustration shows its use with the door standing open. In the latter method a wedge of some sort should be placed under the door to prevent too great strain upon the hinges. The thin steel used permits the horizontal bar to occupy the space that usually exists between the top of the door and the jam, and yet the device is sufficiently strong to sustain a weight of two hundred and fifty pounds. It is adjustable to doors varying from one to three inches in thickness, and

even a thin closet-door can be used to suspend a child.

It will be perceived that to the bracket may be attached any desired form of suspension and extension apparatus, such as axillary supporting bands, in addition to the head-rest shown; or the suspension extension apparatus recommended by Dr. S. Weir Mitchell may be as conveniently employed. The applicability of the apparatus to medical and other gymnastic work will be apparent, and further uses will readily manifest themselves as the requirements are presented.

When graduated and exact extension is demanded, an ordinary spring weighing-machine can be interposed between the hook on the bracket and the suspension apparatus proper. This method has been satisfactorily employed by having the patient seated in a chair, with the back to the door upon which the bracket was attached; extension to the desired number of pounds being obtained, the rope made fast and the definite length of time of suspension-extension noted by a watch.

The entire outfit, consisting of bracket, rope, pulleys and head support, weighs only eight pounds, and when taken apart will occupy but little space in a physician's bag. I desire to acknowledge my appreciation of the faithful execution of my designs by Mr. A. Gustaf Gefvert, mechanic to the Jefferson Medical College Hospital, from whom the apparatus may be obtained.

IN the treatment of all forms of *ulcerations*, Dr. Cantrell advises the dry method at the beginning of the application. After granulations have sprung forth, inunctions seem to assist in the cure.

THE PHILADELPHIA POLYCLINIC

Brief, practical, original articles, and news of general professional interest are solicited for publication in this journal. Contributions accepted will be paid for on publication, or, if desired, and so indicated on the manuscript, 250 reprints will be furnished in lieu of other compensation.

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PHILADELPHIA, JUNE 26, 1897

COMPRESSED-AIR ILLNESS.

OCCUPATIONAL-DISEASES deserve a much more extensive study than they have received. There is some special literature on the topic, and some discussion of it in works on hygiene, but in most cases the information afforded is meager. A great difficulty is that those controlling large numbers of workers are unwilling to permit detailed inquiry, fearing either interference with the routine of labor, or the discovery of conditions which will be the basis of criticism or restrictive legislation. Some of the essays that have appeared have been rather polemic in character, written especially to defend or excuse certain classes of establishments. In this, as in other departments of sanitary science, much nonsense has been uttered. Some obviously offensive trades have been pronounced "healthy," without any satisfactory evidence as to the effects on those working at them, or living in the neighborhood of the establishments. The problem of controlling offensive industrial operations is, indeed, one of great importance and difficulty in municipal hygiene, and not the least of the difficulties is with regard to the smoke nuisance. There is some hope that the general

introduction of transmitted electric power will eliminate much of this trouble, but some years will elapse before a result will be obtained.

We are led to these general remarks by the perusal of a work which presents, so far as we can judge, a careful study of an interesting and important question in industrial hygiene, viz., Dr. E. Hugh Snell's essay on "Compressed-Air Illness." The peculiar affections developed in those who work in an atmosphere under distinctly higher pressure than the normal, have been often designated as "caisson-disease," a term to which Dr. Snell justly objects, since it expresses neither the cause, character, nor features of the disease. A caisson may or may not be charged with compressed air, and compressed air may be used at other points than in the caissons. The train of symptoms hardly deserves to be designated as a disease.

Dr. Snell's opportunities for scientific study of compressed-air illness were afforded in connection with services as medical officer at the construction of the Blackwall tunnel under the Thames at London. We are glad to note that he has not omitted to include a brief description of so much of the engineering details as will enable one to understand the nature of work and the somewhat abnormal conditions to which the workmen were subject. We cannot avoid an allusion to another non-medical feature which is distinctly, though perhaps not intentionally, indicated, namely the socialistic tendencies of the London authorities. The County Council acquired powers to grant relief to men who might be injured by the compressed air. It became necessary, therefore, to afford prompt medical aid, in order to diminish the indemnity, and also to diagnose accurately illness due to the compressed air, for the knowledge that a public body was ready to apply a financial balm, would inevitably lead to malingering and to the ascrip-

tion of every illness to the effect of the air pressure.

We need not discuss here the differential diagnosis nor special pathology, but a brief outline of the conditions under which the men work, and the symptoms due to those conditions will be interesting.

Compressed air was employed at the Black-wall tunnel at an average pressure of about twenty-five pounds to the inch; the maximum did not exceed twenty-seven pounds. The number of men working together in the compressed atmosphere varied from thirty to eighty. Each remained eight hours at work, with a recess of forty-five minutes at the middle of the period; during this recess the workman took a meal under ordinary pressure. A warm room was provided to enable the men to change their clothes and rest a little after their work was done, but as often happens in efforts to provide comfort for the lower class of workmen, advantage was not taken to a great extent of the opportunities for rest. Hot coffee was provided for the men on coming out of the compressed air. A large boiler was fitted up with pressure apparatus for treatment, it having been found that re-compression is effectual in many cases. The time occupied in passing from the ordinary pressure and *vice versa*, technically called "locking in" and "locking out," is a matter of importance. When the Eustachian tubes are open, but little inconvenience is experienced in a quick locking in, but the locking out must be slower. With high pressures ten or fifteen minutes may be required.

In spite of the precautions taken, over two hundred cases of compressed-air illness occurred during the construction of the tunnel. From the selection of cases given by Dr. Snell, it appears that severe pain in various parts of the body, especially in the legs, is a common trouble. This condition, known among the workmen as "bends," was treated

by re-compression with successful results. A more serious condition is paralysis, especially when accompanied by bladder-troubles. Auditory vertigo, which is not unfrequently produced, is also, in the main, of favorable prognosis.

Compressed-air illness is probably due to more than one cause. How far high pressure alone could produce it, cannot be ascertained, since it is impossible to eliminate other unfavorable influences. There is almost always bad ventilation, and hence an accumulation of effete products. The use of incandescent electric lighting will remove one source of contamination, but more serious sources still remain. Apart from the steady introduction into the confined space, of the products of respiration, we have the accumulation of the more offensive excreta. If arrangements made to meet this involves the necessity of the men leaving the caisson, and thus losing time, they will be apt to violate the rules, and an accumulation of excreta will soon give rise to a cess-pool air that must be injurious. Dr. Snell holds that the essential cause of the illness is the presence of excess of carbon dioxide. He suggests that the air furnished to the compressors should be purified by passing it through an alkaline solution; but this will only partly remedy the difficulty; the constant escape of carbon dioxide from the lungs, and even from the soil which is being disturbed in the work, will add a notable amount of the objectionable ingredient.

A pretty full discussion is given of the various theories that have been advanced as to the etiology and pathology of the illness. It affords interesting reading as showing how wild are the methods of reasoning often employed by learned men. Clinicians have propounded theories which are overthrown by a simple study of chemistry and physiology; physiologists have offered suggestions which are worthless when applied to the practical clinical issues; therapeutists

have based conclusions upon tank-experiments conducted under a pressure of a few pounds, and engineers have sought to explain the symptoms upon purely mechanical principles.

A careful selection of the men is, of course, an important point. Most observers are agreed that alcohol-users are unfit for such work. The use of hot coffee as a beverage just after emerging from regular work is recommended.

H. L.

Editorial Note

The "Lehigh Valley Medical Magazine" for June is a most interesting number. Its carefully prepared reports of the meetings of the Medical Society of the State of Pennsylvania and of the American Medical Association are not only attractive in style, but are also models of comprehensive and discriminating conciseness. Our cotemporary is a credit to medical journalism and an honor to Pennsylvania.

The Plague Bacillus.—Report of the Commission of the Vienna Royal Academy of Sciences—(*Wiener Klinische Wochens.*, May 20, 1897). This Commission found that the fatal cases were largely due to a mixed infection, the streptococci and pneumonia bacteria predominating.

The bacillus of the plague has a decided capsule, thrives on alkaline media, is not stained after Gram, and readily succumbs to drying and high temperature. The disease arises spontaneously only in rats; other animals do not take it unless directly inoculated. It is not easily determined outside of the secretions of the animal body, but it is found almost in pure culture in all the organ juices. Pure cultures have been obtained from the blood but not from the feces. The Commission do not fear that the disease will gain an entrance in Europe, but advise a careful extermination of all ship rats.

M. V. B.

In the Clinics

Under the Editorial Charge of DR. OAKLEY W. HERMANCIE.

DR. CANTRELL insists on the necessity for internal treatment of *psoriasis*. He stated that external treatment did remove scales and give the patient relief from the intolerable itching that often was present, but that in his opinion it had little curative effect.

* *

DR. YOUNG pointed out recently the cause of the *deformities resulting from infantile spinal paralysis*. The deformities are due first to the contraction of the muscles which are not paralyzed, second to the stretching of the muscles which are paralyzed from the weight of the foot or limb, and third and most important, to the growth of the bones and joints, the paralyzed parts remaining almost the same.

* *

A GUARDED prognosis is given by Dr. Gibb as to the quality and character of the voice after the removal of *adenoid vegetations* from the vault, or the excision of hypertrophied faucial tonsils in children of ten years or over. We are apt to believe in the return to a normal voice after these operations, and not infrequently we shall be disappointed. Besides the faulty habit formed, prolonged mouth breathing brings about changes in the turbinates, and the high-arched palate contributes to an alteration of tone.

* *

Dr. Woodbury reports *operations upon the lingual tonsil for the relief of cough and other reflex phenomena*. A young girl, 13 years of age, complained of a sensation of irritation in her throat, a constant desire to swallow, and frequent effort to clear her throat. There was also a dry cough occurring at intervals during the day. Upon examination, the glandular structure upon the dorsum of the tongue was found to be enlarged in several places, so as to impinge upon the epi-

glottis. As the masses were discrete, they were touched with ten per cent. solution of cocaine, preparatory to the application of the galvano cautery. Aided by the laryngoscopic mirror, the more prominent growths were then touched with the red-hot wire. There was very slight reaction, and a week later the operation was repeated upon the other portions of the hypertrophied tissue. A month later, the tumors had almost disappeared and the patient reported relief from all the above symptoms.

Selection

SHELL-FISH IN RELATION TO DISEASE.¹

The Local Government Board of England has just issued an extremely interesting document entitled "Oyster Culture in Relation to Disease," in which the following papers are presented: Report of Dr. Bulstrode on an inquiry into the conditions under which oysters and certain other edible mollusks are cultivated and stored along the coast of England and Wales, Dr. Klein's report on bacteriological researches on the same subject, a copy of Dr. Conn's report to the State Board of Health of Connecticut on the outbreak of typhoid fever at Wesleyan University, and extracts from the Proceedings of the Académie de Médecine of Paris relating to the same subject.

The investigations conducted by Dr. Bulstrode included all parts of the coast line of England and Wales where the oyster industry is carried on as a trade. His report is fully illustrated with maps, plans and photographs of the places which were inspected. In his introductory comments upon these papers the chief medical officer says: "A superficial glance at the maps with which Dr. Bulstrode's report is illustrated, might well lead to the hasty conclusion that sewage is deemed to be of value, if indeed it is not actually sought for, in connection with the processes of oyster fattening and storage"; and still further that, "at certain places along the coast no care whatever has been exercised in the selection of localities for fattening beds and for storage ponds, in order to ensure that oysters be reasonably free from sewage pollution."

The conclusions which appear to be derived from Dr. Klein's bacteriologic investigations are the following:

(1) The cholera vibrio, and still more the typhoid bacillus, are difficult of demonstration in sewage known to have received them.

(2) Both these organisms may persist in sea-water tanks for two or more weeks, the typhoid bacillus retaining its characteristics unimpaired, while the cholera vibrio tends to lose them.

(3) Oysters from sources which appeared to be free from risks of sewage contamination exhibited none of

the bacteria, specific or otherwise, which are commonly regarded as being concerned with sewage.

(4) Oysters from a few out of numerous batches derived from sources where they did appear to be exposed to risk of sewage contamination were found to exhibit colon bacilli, a circumstance which, notwithstanding the comparative universality of this intestinal organism, may be regarded as having some significance by reason of the absence of this bacillus from oysters which appeared to have been exposed to no such risk.

(5) In one case where the circumstances were especially suspicious, Eberth's typhoid bacillus was found in the mingled body and liquor of the oyster.—*Boston Medical and Surgical Journal*, Dec. 24, 1896.

New Publications

RETINOSCOPY, OR SHADOW TEST. In the Determination of Refraction of the Eye, at One Meter Distance, with the Plane-Mirror. By James Thorington, M.D., Adjunct Professor of Diseases of the Eye at the Philadelphia Polyclinic, etc. 24 illustrations. Pp. 66. P. Blakiston, Son & Co.

We take pleasure in commending this concise statement of the methods to be employed in the routine use of a most valuable objective means of determining the errors of refraction. The student is told in simple English how to proceed in the examination, but little attention being given to theory. We are told in the preface that the author's design is "to elucidate in as concise a manner and as few words as possible the method of applying retinoscopy, which has given much satisfaction at his hands." This he has done in a very satisfactory way. We can but think, that a chapter devoted to a careful statement of the optical principles involved in the shadow test would have been of great practical value to the student and it is to be hoped that in later editions such a chapter will be added. In the meantime, however, the busy ophthalmic practitioner as well as the student will find this little brochure a most valuable contribution to the subject. S. D. R.

BOOKS RECEIVED.

TRANSACTIONS OF THE ACADEMY OF SCIENCE OF ST. LOUIS, Vol. VII: No. 15. Relations of the Devonian and Carboniferous in the Upper Mississippi Valley. By Charles R. Keyes. Pamphlet. June 1, 1897. No. 16. Critical Notes on the Muricidæ. By Frank Collins Baker. Pamphlet. June 12, 1897.

¹ Twenty-fourth Annual Report of Local Government Board, 1894-1895. Supplement in continuation of the Report of the Medical Officer for 1894-1895. On Oyster Culture in Relation to Disease. Pp. xxvi, 174. London, 1896.

THE PHILADELPHIA POLYCLINIC

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JULY 3, 1897

RACHITIS.

BY J. MADISON TAYLOR, M.D.

Professor of Diseases of Children at the Philadelphia Polyclinic, Neurologist to the Howard Hospital, etc.

RACHITIS or rickets is a disorder of nutrition primarily, but so numerous and characteristic are the attending disturbances of the nervous system that it may be regarded as secondarily a neurosis. Rachitis is a complex constitutional disorder of childhood, characterized chiefly by evidences of defective nutrition affecting all the structures, but more conspicuously the bones, exhibiting a lack of tone in the ligaments, causing bow-legs, knock-knees, flatfoot and weakness of the muscles.

Along with these phenomena are frequently seen profound nervous symptoms, cranio-tabes with its resulting hyperemia and other cerebral disorders, insomnia due to this night-terrors, irritability of temper, at times rising into maniacal attacks; laryngismus, stridulus, convulsions, hydrocephalus, tetany with Trousseau's symptom; spasmus nutans, nystagmus and hyperidrosis. These states all may be entirely recovered from, and usually with no resultant cerebral damage.

Digestion is also seriously deteriorated; there is a marked tendency to intestinal and other catarrhs, anemias and vitiation of the blood.

Rachitis is a far more common condition than statistics would lead us to believe. It often disappears spontaneously under favorable circumstances or changed conditions from those which produced it. It is at the foundation of much of the impaired resistance in infancy and early childhood. When the active pro-

cess ceases and only the deformities remain, the individuals are oftentimes most vigorous, both physically and intellectually.

CAUSES.—Rachitis is found the world over, chiefly in cities or in crowded, underfed communities, lacking light and air, and is rare in country places or where the food supply and hygienic conditions are favorable. It is more common in Europe than in America and our supply of cases of the disease is derived mainly from thence. Observers in the large clinics of Europe admit its appearance in over thirty per cent. of children applying for advice. In this country it is not quite so common or severe, even in our largest cities, and is comparatively rare out of them unless brought from thence. With us in America it is seen either in the children of emigrants or in the negro and mixed races, especially in babies who have been hand-fed or who early get coarse or unsuitable food, especially when deficient in fat. It appears now and again in the families of the well-to-do, even among the very rich, especially where nervous mothers coddle their children over-much or practice erroneous methods of feeding and nursery hygiene. Rickets is rarely congenital. The disease usually develops between the first and second years.

Predisposition has much to do with the production of rickets. The offspring of parents in feeble health, of poor digestion and assimilation, senility of the father, and the mother from any cause exhausted, as by

discharges of pus or blood, etc., or either or both parents overworked or underfed, are apt to be rachitic. Rachitis is not hereditary.

Parental syphilis, alcoholism, and tuberculosis frequently induce rachitis. Infants who begin life with an unfavorable inheritance, and who are confined in dark, filthy, overcrowded houses, especially in damp cellars, are very prone to develop the disease; even those who begin with good constitutions may thus become rachitic. The most powerful factor is food deficient in certain essential qualities, as fat and albuminoids. Babies who depend upon breast milk from poorly nourished mothers, or upon the parental supply for too long a time, are liable to the disease; even where the supply of food is good and yet the digestion is too weak to cope with it, infants may thus be affected. Rickets is a frequent sequel of exhausting infantile disorders, especially in one predisposed.

GENERAL SYMPTOMS OF RACHITIS.—The first symptoms of rickets in a child are fretfulness, disturbed, intermittent sleep and slight fever at night, the little patient becomes mildly cross, repelling advances, its pillow becomes wet with sweat during sleep, beads of perspiration appearing first on the forehead and face; it seems to suffer from a sensation of heat or oppression, and kicks and throws off the bed clothes, inducing a peril from chilling of the surface thus exposed. There is always marked pallor, and often a diffuse soreness and tenderness of the body. The digestion is markedly disturbed with flatulence, fetid stools and diarrhea, with evidences of intestinal catarrh; the liver and spleen are often enlarged, and dentition is delayed. The veins about the head are seen to be large and full; on being touched the child shrinks away or cries; the flesh is sore, but this is probably due to a morbid state of the periosteum, though not entirely, because the abdomen is also tender. It is

only comfortable when lying quietly, or held carefully in the arms. In some there is a slight temperature rise in the latter part of the day, and a moderate quickening of the pulse. After a time changes in the skeleton occur, first to be felt and later to be seen. Craniotabes, or thinning of the cranium in spots, is a very characteristic deformity, occurring during the first year, usually before the tenth month. This is a source of considerable peril, because of leaving considerable areas of the brain undefended by proper mechanical protection. This is ascribed often to a double cause of syphilis and rickets acting together. Such a child is more than ordinarily fretful, especially when lying down, thus exerting pressure almost directly on areas of the brain. Cerebral circulation is thus disturbed, hence sleep is unquiet, the child awakens readily and needs to have its position altered. This possibility of varying pressure may produce considerable disturbance of the vaso-motor and cardiac centers in the medulla. Many little changes are thus produced in the brain, oftentimes but temporary, exaggerating the well-known susceptibility of rachitic infants to neuroses. Laryngismus stridulus or glottic spasm, while not common, is a characteristic phenomenon, occurring suddenly with an arrest of respiration, seemingly a palsy of the respiratory center; the face becomes deadly pale, a moderate rigidity of the limbs sets in with carpopedal spasms. After a few seconds, a long, deep, effortful inspiration is made, and this, passing through the narrowed chink of the glottis, causes a whistling sound or cock crow, and the attack ends with a waking up of the patient in a dazed and surprised condition. Rachitic infants are especially liable to convulsions, also to tetany. These unfortunate children are peculiarly defective in their power of resistance. The altered shape of the chest walls, which is a lateral depression of the ribs, and thrusting out of the

sternum anteriorly, produces changes in the shape of the organs within. The heart is not seriously affected, but the completeness of its movements is interfered with, and the lungs, moreover, cannot expand properly, from which may come a host of symptoms due to impaired circulatory and respiratory completeness, of little importance in moderate health, but acting as a source of great danger in disease. A partial collapse of certain lobules of the lung is likely to occur on slight congestion, especially along their thin edges. The lateral and posterior parts suffer from pressure, and the anterior borders may become emphysematous. If in such an one bronchitis or broncho-pneumonia occurs, the elimination of muco-pus is difficult and cyanosis of a serious sort readily arises. A peculiar form of "pressure palsy" is sometimes seen in rachitic children, owing to inflammatory change in the vertebræ compressing the cord which usually is recovered from.

An acute form of rachitis is recognized by a more marked febrile movement and tenderness than occurs in the usual slow form, and in which the joint swellings appear more quickly.

The change in the bones of the head leaves the fontanelle open long after it should have closed (at about eighteen months), and at a year and a half to two years, maybe one to two inches wide. The head is usually larger than that of a normal child, and by contrast to the shrunken body seems much larger.

DEFORMITIES.—A child distinctly rachitic is a conspicuous and familiar object in all clinics, and in the practice of all except physicians in very fortunate rural localities. Those in whom the disorder is less graphically marked, can yet be readily recognized by a well-defined train of phenomena.

The general appearance of a rachitic child is that of one badly modeled by a novice. Pallor is a constant feature; the blood is low

in hemoglobin, below 50 per cent. or much less, sometimes leukocytosis, but the red cells are little, if at all, affected. Most rachitic babies are fat and doughy, lacking in tone, with little resistance in any of the tissues. As they grow older, the lymph nodes become enlarged and the tonsils hypertrophy, also the adenoid tissues about the vault of the pharynx.

The mucous membranes are easily disturbed both in the respiratory organs and in the intestines and bowels. Digestion is poor; diarrhea easily induced and difficult to check. Fortunately, appetite is usually good, especially for fats and flesh meats, so much needed, and these articles are readily assimilated.

Catarrhal attacks are liable to run a protracted course and extend broadly. The nervous disturbances have been alluded to and are dependent upon defective nutrition of the centers which in children are in an undifferentiated state, and interference in their proper growth is quickly punished by profound perturbation of function.

Dentition is apt to be very late, and the slight congestive stages of tooth growth and eruption are enough, in a rachitic child, to act as exciting causes to the very unstable condition of its nervous forces, hence these children suffer extremely from what is usually a normal process.

The order of teething is not changed materially, though it may be very irregular, nor are the teeth themselves defective; this last in sharp contrast to syphilis, which is said by some to be so closely connected with rachitis.

The more graphic phenomena of rachitic children are the deformities essentially symmetrical, and first seen in the enlargement of the bony junctures, especially the ribs and the costal cartilages, forming the much quoted "rosary" and present in nearly all cases a valuable diagnostic sign.

The head appears to be too large and is out of proportion to the body, though not, as a rule, of much greater circumference than a normal head. It is usually square, because of the prominence of the parietal bones, and flattened at the vertex and occiput. Sometimes

this is accompanied by a sulcus or furrow in the mid-line antero-posteriorly, and laterally along the coronal suture. The sutures remain open much longer than in healthy heads. The fontanelle is open as late as the end of the third year.

(To be continued.)

ANTISEPSIS AND ASEPSIS IN OPHTHALMIC SURGERY.

BY T. B. SCHNEIDEMAN, M.D.

Professor of Diseases of the Eye, Philadelphia Polyclinic; Assistant Surgeon Wills' Eye Hospital.

UNDER the above title, Dr. Ludwig Bach,¹ in a special monograph, discusses the subject from the standpoints of clinical experience and bacteriologic researches.

Mercuric chlorid (1-3000 and 1-5000), aqua chlorini, iodin trichlorid (12-000), mercury cyanide (HgCy 1.0, NaCl 10.0, aq. destil., 1500), mercury oxycyanide (11-000), mercury biniodid (41-000), especially for disinfecting the margins of the lids, are the most popular antiseptics. Recently, formol (12-000) has been highly recommended; it and the mercury oxycyanide are of lesser effect in coagulating albumen—an important advantage, and also less irritating, while equal in power to sublimate as a disinfectant.

In the pre-antiseptic period suppuration occurred in from 5 to 10 per cent. of cataract operations; at present the losses from infection have been reduced to 1 per cent. and even less. Nevertheless, with some operators the former high percentages still occur, although perhaps not always reported.

The method of applying the antiseptic *regime* differs widely, especially in ophthalmic surgery. This is true not only of the agents employed but also of the manner of employing them. Some begin flushing or mopping the conjunctiva and margins of the lids with antiseptic fluids several days before

operation; others apply an antiseptic bandage the day before; the majority defer disinfection of the parts until immediately before operation. How far useless and irrational precautionary measures may be carried is evident from a report published only four years ago; the writer included even the intestinal canal in the antiseptic program. Five days preceding operation he exhibited calomel followed by salol, magnesia salicylate, and finally, sodium bicarbonate. Not satisfied with syringing the tear-passages only, the nasal chambers and Eustachian tube were treated similarly; the nose was provided with an antiseptic bandage the night before operation.

Latterly, the value of all measures bearing upon this subject has been examined experimentally by means of bacteriologic investigation, and much light has been thrown upon it. It has been clearly shown that it is impossible to certainly sterilize the conjunctival sac, much less the margins of the lids, by any known chemical or mechanical means. It has also been proved that a bandage, even an antiseptic one, increases the number of germs by inhibiting winking. It has furthermore been established that gentle mechanical cleansing of the conjunctiva, and somewhat more active rubbing of the margins of the lids, with simultaneous irrigation,

¹ Antiseptis und Asepsis in ihrer Bedeutung für das Auge. Dr. Ludwig Bach, Privatdocent und I. Assistent an der Universitätsaugenklinik in Würzburg. Halle: Karl Marhold, 1897.

is far more effective in diminishing the number of germs than simple flushing.

It has not yet been determined certainly whether the specific antiseptics are more effective in these irrigations than any simple fluid. In some control experiments Bach obtained results but very slightly better when an antiseptic was employed. Others prefer antiseptics. As the result of personal experience with different antiseptics, as well as with the different methods of employing them, Bach sums up his conclusions as follows: Do not trouble the eye too much before operation; avoid all irritation; be accurately aseptic.

In the Würzburg clinic the following preparatory treatment is practised at present. This is not begun until immediately before operation: The lids and adjacent parts are first cleansed with lukewarm water and soap; the margins of the lids are next mopped with a moist sterile pledget of cotton, during simultaneous irrigation with warm normal salt solution (boric acid lotion may be employed instead). The patient is then directed to wink repeatedly; this promptly floats any germs which may be suspended in the conjunctival sac toward the margins of the lids and especially into the nose. After winking has been practised for a short period, the lid margins are once more mechanically cleansed with simultaneous irrigation. The speculum is inserted and fixation forceps applied. The region where the cut is to be made is now carefully wiped with a pledget of cotton, during simultaneous irrigation, with normal salt solution; the fluid accumulated in the conjunctival sac is mopped up with sterile cotton.

The instruments are carefully sterilized. The following procedures are recommended: Boiling in a weak solution of soda; wiping the cutting instruments with cotton soaked in the following solution: Absolute alcohol and ether, equal parts, with a few drops of

ammonia water; then placed for 5 or 10 minutes in a 5 per cent. solution of carbolic acid, and preserved (for not too long a period) until used in sterilized lukewarm normal salt solution; or a 1 per cent. solution of mercury cyanide, as a bath for the instruments, for about 10 minutes (Chibret); or a solution of solveol, 6.0, lysol, 0.1, water, 1,000 (Burchardt). Every instrument brought into direct contact with the wound, or introduced into the anterior chamber, must be sterilized; the part of the instrument which touches the wound must, therefore, not come in contact with the hand, the lid margin, the fluid in the conjunctival sac—in short, with nothing that is not certainly sterile. If we proceed in this manner, if we cultivate an aseptic technic, the results will be most satisfactory in every respect—rapid healing, safety from infection.

In the Würzburg clinic operation is unhesitatingly practised upon cases with moderate conjunctival catarrh, or with disease of the lachrymal passages, provided a very small amount of mucous secretion is alone present. Nevertheless, proceeding according to the method detailed the results are unsurpassed; the average duration of healing after extraction is ten days. Of 112 extractions during the past year not one was lost from suppuration.

Based upon experiment and clinical experience, Bach would only return to antiseptics and elaborate preparatory treatment if the conjunctival sac and margins of the lids could certainly be made sterile thereby—a condition which, for anatomic and other reasons, seems impossible. So long as this is the case he would reject every known antiseptic, for the reason that in the concentration and time required as an efficient disinfectant, they are all irritating, injurious, and hence not favorable to healing.

The common argument that bacteria, which may have remained, are weakened in

virulence by the addition of antiseptics to the irrigating fluid, and the danger of infection therefore lessened, has been shown by experiments to be fallacious.

"In spite of careful antiseptics," is the apology frequently heard for a bad result from suppuration. What is the use of careful antiseptics, if, for example, an instrument brought into direct contact with the wound, is permitted to touch the margin of the lid, the cilia or the fluid in the conjunctival sac? This increases the danger of infection to a far greater degree than where, for example, antiseptic irrigations have been omitted.

Based upon experiment, bacteriologic researches, and clinical experience, the author insists that if infection does not take place during operation, it is hardly to be feared that it will occur subsequently from the conjunctival sac; this is, of course, possible, but very little likely if the patient is prevented from pressing germs into the wound by rubbing his eyes, or other hurtful procedure. For infection to occur it is not enough that bacteria should pass over or temporarily lie upon it; they must get into the wound, nay, they must even be pressed in between its lips, as experiment teaches. If this were not so it would be inexplicable that infection does not occur much oftener; in at least 10 to 15 per cent. pathogenic germs are present upon the lid margins and in the conjunctival sac, and remain there in spite of all our endeavors.

What powers, on the other hand, are we justly entitled to ascribe to antiseptic measures? To what extent are we able to influence, by antiseptics, infected wounds, corneal ulcers; in short, cases where infection has already taken place? Schimmelbusch, among others, has instituted experiments which answer these questions. And this is the answer: After infection has once taken place antiseptics are powerless, no matter how employed. As bandages and applica-

tions to the eyes were found to have little effect in diminishing the number of germs upon the margins of the lids and in the conjunctival sac. The former may even cause an increase.

Subconjunctival injections of sublimate have been recommended of late years, in some quarters, in ocular affections due to infection of syphilis. Testimony as to their value has been extraordinary diverse. Chemical examination shows that none, or only the smallest quantity of the medicament, reaches the interior of the eye. Intraocular injections dare not be employed.

The case is different with antiseptic ointments. Contrary to the opinion usually entertained that these have none, or only the slightest, effect upon germs contained in a liquid menstruum, Bach has found that sublimate and silver nitrate in refined petrolatum are powerfully disinfectant; ointment of yellow precipitate is less effective; boric acid and iodoform are practically negative. These effects hold also in combination with a fluid menstruum, as the tears. Refined petrolatum is the best menstruum.

The improved results of the antiseptic period are to be ascribed (independent of the great importance of antiseptics in the disinfection of instruments) less to the action of these substances upon the germs of the conjunctival sac and lid margins, and upon bacteria in the tissues, than to the mechanical effect of irrigations, superior cleanliness and better acquaintance with the possibilities and dangers of infection. As practical applications they go hand in hand with increased knowledge gained in the field of bacteriology. As in general surgery and gynecology, so in ophthalmology, the transition from antiseptics to asepsis is being slowly accomplished and will be maintained, unless our armamentarium of antiseptics be enriched by new discoveries which shall surpass those at present known, in many respects.

THE PHILADELPHIA POLYCLINIC

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PHILADELPHIA, JULY 3, 1897

THE NEXT MEETING OF THE AMERICAN MEDICAL ASSOCIATION.

"THE KING IS DEAD! LONG LIVE THE KING!" The Committee of Arrangements has settled up its accounts and adjourned *sine die*. The Committee of Arrangements will soon meet and proceed to organize for its important undertaking. The Section Officers have received congratulations on the large attendance and high character of the papers. The Section Officers are already planning for special discussions, and writing letters to secure the aid of prominent members.

The American Medical Association changes its workers; but its work is continuous. A successful meeting of the Association, or of one of its sections, means a whole year of work on the part of the officers. The planning and thought must extend over the whole period, and the right thing be done at the proper time. The feeling that the next meeting is a year, or several months away, and that there will be plenty of time to arrange for it in the future, interferes more with the success of the Association than almost anything else. The resolute avoidance of this delusion had very much to do with the success of the recent meeting in Phila-

delphia. While the indulgence of a few in procrastination did more than anything else to limit that success, and added enormously to the difficulties of others who were actively engaged in preparing for the meeting, it is none too soon for those who have the success of next year's meeting in their hands, as officers of the Association, to go very carefully over the situation and push forward their plans as rapidly as possible.

But the full success of the meeting depends as much on the members as on the officers. It is none too soon for every member to consider the question of attendance, and of what he can do to help on the work of his section. Of course, up to the last moment there will be some uncertainty as to the ability of any of us to attend, but that need not prevent early preparation to go in case accident should not destroy our plans. The paper that has been thought about for a year, will certainly contain more, add more to the value of the meeting, and bring its author more credit, than one that has been hastily put together at the last minute. The scheme, or suggestion, or resolution which has been carefully considered is more likely to achieve some substantial good, and less likely to waste the time of the Association, tangle the wits of the presiding officer and breed bad feeling among the delegates, than the proposition which is given definite form only on the spur of the moment.

Just at present we in Philadelphia are inclined to feel that the late meeting has been a great success, and that it must be several years before it can be rivalled or surpassed. Fortunately the Denver members do not share this feeling. The aim they set themselves is to surpass the Philadelphia meeting both in the numbers drawn to the meeting, and in the perfection of its arrangements; and they undertake the work with an energy and determination that will carry them far towards success.

True, there are a great many more doctors in Pennsylvania than in Colorado; but in the latter State a very much larger proportion will be certain to attend and perfect their membership in the Association. The Denver and Arapahoe County Medical Society has about one-third as many members as the Philadelphia County Medical Society, and yet its average meeting is very nearly as large.

Then the Pennsylvania members of the Association have attended in former years when it met at Washington, or can expect to attend when it meets there again or in Columbus. But to physicians of Colorado who are eligible to membership in the Association, it is the opportunity in a generation, and there are enough of them to give a larger delegation from their State next year than attended the meeting this year from Pennsylvania.

Again, for the first time in its history, the Association will probably be given as good railroad rates as any of the other great annual gatherings, and doctors who in former years have, from motives of economy, taken a trip when they could get the better excursion rates of political conventions, or Christian Endeavor, or educational associations, will next year find it more agreeable and equally cheap to go to the American Medical Association. The Omaha Exposition will then be open and attracting general attention, and easy to visit on the way. But there will be no other important medical gatherings, like the International Congress, or the British Medical Association, or the Congress of American Physicians and Surgeons, which met this year, to draw the profession in other directions.

It must be remembered, too, that the number attending the meeting of the American Medical Association, while influenced by its geographical location, is even more dependent on the energy and activity of those

who are arranging for it. Of the two meetings prior to the one just held in Philadelphia, at which the number registered rose above one thousand, one was held in New York, but the other was held in St. Paul. While the ambition of our Denver brethren may seem startling it cannot be regarded as preposterous. They at least are fully alive to the special advantages of Denver as a place of meeting, of which we shall have something to say later.

E. J.

In the Clinics

Under the Editorial Charge of DR. OAKLEY W. HERMANCE.

IN Dr. Gibb's experience a not infrequent etiologic factor in the production of *deviations, thickenings, and spurs on the septum* is the high-arched hard palate, induced by long-continued mouth-breathing, in cases of *adenoid vegetation* and hypertrophied tonsils.

DR. CANTRELL said that most of the *mistakes* made by the general practitioner *in the treatment of diseases of the skin*, were in the use of remedies that were too stimulating in their action, and that should astringents be given the preference, the results would be more satisfactory.

DR. YOUNG showed a case of *paraplegia* from Pott's disease, in which recovery is beginning to manifest itself after eleven weeks treatment. Convalescence is marked by of return of sensation, diminution in reflexes, and return of motion, in the order named. The increased reflexes as a diagnostic sign are of great value, and Pott's disease may sometimes be recognized by this symptom before the occurrence of the deformity.

Two *rare and interesting cases of thoracic aneurism* were presented last week at the medical clinic of Dr. S. Solis-Cohen. In one, the ascending arch of the aorta is involved, and diastolic shock is the unusual

symptom. In the other, involving the transverse arch, both thrill and bruit are absent, and it is impossible to find axillary, brachial, or radial pulse on the left side. It is presumed that this is an instance of spontaneous cure by the formation of firm clot; although there are several puzzling problems concerning the course of bilateral circulation, which remain to be studied. This patient has a "whiffing," raucous voice, and laryngoscopic examination revealed paralysis of the left vocal band. A skiagraph taken by Dr. Stern confirms the diagnosis.

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DR. H. AUGUSTUS WILSON, in a recent lecture, stated as the result of his observation that the greatest abuses of *mechanical appliances in the prevention and correction of deformities* arise from misconception of their effect upon pathologic and abnormal conditions. Braces, like drugs, are never curative; but the skill with which they are employed determines their efficiency, and again like drugs, their improper use is capable of producing serious injury and death. Orthopedic apparatus, like other therapeutic measures, should therefore be carefully studied, as to their potency and adaptability, and their application changed or abandoned, as the therapeutic requirements demand.

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A CASE of *vulvo-vaginitis* in a young girl is reported by Dr. E. M. Clark from the clinic of Dr. Baldy. Nancy W., aged 11 years, three months advanced in puberty, was referred to the clinic on account of a leucorrhœal discharge of two or three weeks' duration. The mucous surfaces of the labia were red and injected as was also the anterior face of the hymen. The mucous membrane was bathed with a white mucus secretion. The perforation in the hymen was small and centrally located. There was no evidence of the extension of the inflammatory process to the vagina.

The treatment consisted in frequent washing of the parts with a solution of sodium borate and essential oils (thyme, eucalyptus, etc.), and dusting with boric acid; subsequently the application to the entire vulvar mucous surface of a 2 per cent. solution of silver nitrate on every third day. Thirty days after the adoption of this treatment the patient was discharged well. In regard to the etiology of the case, it may be stated that the child occupied a separate bed, and that the mother had no leucorrhœal discharge. There was no history of ascarides. The condition was evidently due to the congestive disturbances incident to puberty, exaggerated in this case by its early onset, in a child already enfeebled by a rheumatic endocarditis following an attack of typhoid fever one year ago. This case is interesting, on account of the quickness with which the cure was effected through complete control of the patient. The reason, perhaps, why vulvo-vaginitis in children is, as a rule, so obstinate to treatment is from lack of intelligent co-operation in carrying out the frequent ablution and medication.

Current Literature

The Absorption of Antitoxin by the Blood.

—E. Müller (*Jahrbuch f. Kinderheilkunde*, Vol. XLIV, Nos. 3 and 4). Müller studied the blood of children after the antitoxin of diphtheria had been injected into the system, his endeavor being to find how long the blood retained the "protective bodies" which are supposed to be present in the antitoxin.

The antitoxin is not destroyed in the blood but rather is excreted or thrown out in a short time after its absorption. The time of this excretion varies, however, in different individuals, even though of the same age and body weight. There is no direct connection between the size of the dose of the antitoxin and the duration of the power of immunity, i. e., the time the antitoxin remains in the blood. The immunity only lasts as long as there are sufficient units of antitoxin (A-E's antitoxin-einheiten), remaining in the blood.

The antitoxin was seldom found in a quantity sufficient to cause immunity later than

the third week, and this laboratory fact corresponds with the observations of the clinicians. The work is very carefully detailed, and tables are given showing the protective power of the blood of a number of individuals on successive days.

The Anti-streptococcus Serum.—Robert F. Weir (*New York Medical Journal*, June 12, 1897). The serum of Marmorek has good effect in erysipelas and scarlatina, but no proof of its value in puerperal septicemia exists. It is worthy of further test in cellulitis, osteomyelitis and surgical peritonitis (non-uterine). The dosage should be increased up to 60 and even 150 cubic centimeters per day, and in such dosage it is a fairly safe remedy.

M. V. B.

Selection

THE NEW YORK UNIVERSITY BELLEVUE HOSPITAL MEDICAL SCHOOL.

THE announcement made in last week's *Medical News* that the consolidation recently entered into by the University Medical School and the Bellevue Medical School for the purpose of organizing a medical department of the New York University had been annulled, is authoritatively confirmed.

The announcement of the consolidation was welcomed by all who are interested in the progress of medical education. The possibilities that presented themselves in the organization outlined by its promulgators tempted the imagination to grand flights in anticipation of what the future held in store, in the realization of a magnificent medical institution that would surpass anything yet contemplated. All these dreams have been dissipated, and affairs seem to have been restored to the *status quo* previous to the attempted consolidation. The responsibility for the final steps that led to the separation is not difficult to place, but the original basis of the misunderstanding is doubtless to be found in the failure on the part of both parties to thoroughly comprehend the difficulties inherent in the consolidation of two old-time friendly but vigorous rivals. The proceedings had not reached a stage of advancement that would prevent Bellevue withdrawing with honor from the contemplated agreement; and this is what has occurred, the step having been taken at the formal solicitation of the representatives of the University Medical School.

With this brief interregnum in her existence, Bellevue is, therefore, again free to take up her career at the point at which the interruption came and go forward with the enlarged plans contemplated after the disaster by fire which befell her building in March last. The *entente cordiale* existing between the two institutions seems to have been strengthened rather than disturbed by the intimate contact necessitated by the consideration of the serious questions involved.—*Medical News*, June 19, 1897.

New Publications

HYSTERIA AND CERTAIN ALLIED CONDITIONS—Their Nature and Treatment, with Special Reference to the Application of the Rest Cure, Massage, Electrotherapy, Hypnotism, etc. By George J. Preston, M.D., Professor of Diseases of the Nervous System, College of Physicians and Surgeons, Baltimore, etc. Illustrated. 8vo, pp. 298. Philadelphia: P. Blakiston, Son & Co., 1897.

The importance of the subject and the lack of a recent book in English dealing with it, are given as the *raison d'être* for the production of this well-written and well-printed volume. The author has performed his self-appointed task in an eminently satisfactory manner and is to be congratulated as well as commended for his admirable presentation of the various phases of a disorder concerning which some of the misconceptions and false notions of a former time still exist. Separate chapters are devoted consecutively to (1) historic considerations, (2) nature, etiology and pathology, (3) symptomatology, (4) disturbances of motion, (5) convulsive attacks, (6) mental condition, (7) visceral and vasomotor disturbances, (8) differential diagnosis, (9) treatment, (10) electrotherapy, hydrotherapy, massage, (11) rest-cure, hypnotism, surgical interference; and these are supplemented by an adequate index, thirteen wood-cuts and three plates (after Richer, depicting the several stages of the hysterical convulsion). The author speaks with authority, by virtue of thorough training, large clinical experience and extensive reading. His style is simple, his language plain, his context clear. Though manifesting throughout an eminently practical tendency he has given a scientific exposition of his subject based upon the most recent developments, and his descriptions and recommendations may be accepted with confidence and assurance. An especial word must be said for the mechanical execution of the book, on account of the large, clear and clean type, its substantial paper, its excellent printing and its neat binding.

A. A. E.

In the *American Monthly Review of Reviews* for July, General A. W. Greely has an important article on "Higher Deaf Mute Education in America." It should be of interest to all physicians.

THE PHILADELPHIA POLYCLINIC

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EAR-VERTIGO FROM ANEMIA OF THE LABYRINTH.

BY CHARLES H. BURNETT, A.M., M.D.

Emeritus Professor of Diseases of the Ear, Philadelphia Polyclinic.

THERE are a few cases of deafness, tinnitus and ear-vertigo, due to anemia of the labyrinth. These cases, as far as reported, are not accompaniments of general anemia: they seem to be purely local and their causation is not fully understood.

Anemia of the labyrinth, causing deafness, tinnitus and vertigo, may be diagnosed in two ways, viz: by the temporary congestion induced in the labyrinth by eating, and also by the inhalation of nitrite of amyl.¹

If temporary improvement in all or any of these symptoms ensues after eating or after the inhalation of a few minims of nitrite of amyl, we may conclude that we are confronted with a case of chronic local anemia of the labyrinth, and that the case may be beneficially treated by doses of trinitrin, $\frac{1}{100}$ gr. two or three times daily.

The following case will illustrate what has just been stated:

Mr. E. B., age 38, single, of good family history and without any syphilitic taint, consulted me, Feb. 10, 1897, regarding dullness of hearing, tinnitus and vertigo, of some years' duration. His statement was that his aural symptoms, or "distress in his head," varied in intensity during each day—and that he had noted this fact for some time. The hearing in the left ear was one-half normal, while that in the right ear was reduced to a few inches. That which annoyed the patient the most was the combination of tinnitus

and vertigo, or the "distress in the head." Upon inquiry I learned that some relief from tinnitus and vertigo generally followed eating. As eating causes congestion of the head the conclusion was plain that congestion of the labyrinth, which formed part of the congestion of the head, relieved the aural symptoms, which, therefore, must depend upon a chronic, local anemia of the labyrinth. The nitrate of amyl test was not applied, but the patient was put upon doses of trinitrin, gr. $\frac{1}{100}$, first once a day, and then twice daily, beginning March 1, 1897.

After 1 gr. in all was thus taken, the symptoms of vertigo were greatly relieved and the patient was able to do light farm work. Under date of June 21, 1897, the patient informs me by letter that he has taken another grain of trinitrin, in doses of $\frac{1}{100}$ gr. each, twice daily, and that the vertigo has entirely ceased. The tinnitus, however, "is just as bad as ever." The hearing has not been tested, as I have not seen the patient since March.

I have ordered a continuation of the trinitrin, hoping that as the vertigo has disappeared under its use, the tinnitus will do the same.

Great care must be exercised in differentiating between ear-symptoms due to anemia, and those to congestion of the labyrinth, in administering any drug. In the case just narrated, for example, a decongesting drug would do much harm, when the stimulating drug will benefit, as has been stated.

In a case of sudden and profound ambilateral labyrinth deafness, with tinnitus and

¹ Lermoyez: *Annales des maladies de l'oreille*, July, 1896.

vertigo, coming on in the early stages of diphtheria, in a woman of 35, seen in consultation with Dr. James C. Wilson, last December, the differentiation between anemia and congestion of the labyrinth was made by inhalation of five minims of nitrite of amyl. As all

the aural symptoms became immediately worse we could assure ourselves that we had to deal with a case of profound congestion of the labyrinth, and it was treated as such, with some relief to all the symptoms; chiefly, however, to the vertigo.

SUGGESTIONS ABOUT WOMAN'S DRESS.

BY ELIZABETH R. BUNDY, M.D.

Few physicians will dissent from the statement that there is something wrong about the conventional dress of woman.

Probably the subject takes form in most minds, as something to be deprecated, because of supposed injurious pressure exerted by *tight* clothing. This matter of pressure is indeed important; and the annoyances in impeded circulation, passive congestion, etc., have been duly set forth in season and out of season—yet with no more insistence than their importance demands.

The difficulty, however, is not a matter of pressure only; and among the many factors which complicate the problem, the subject of the proper distribution of *weight* is still to be considered. Much may be accomplished in the way of *diminishing* weight, by wearing the combination undergarments, which may now be easily obtained at reasonable prices and in almost any material, but to so arrange the carrying of inevitable weight, that it shall not be borne unequally, and largely where it can least be tolerated, still remains.

Precept upon precept, and arguments without end, will have no effect upon the average patient who suffers from an improper mode of dressing. The arguments will indeed be without end, for they will be unheeded. No one was ever yet convicted of wearing tight clothing. No physician can remember a patient who did not—by her own testimony—wear her corset “very loose”!

A patient who will not at once give up her corset, may perhaps be persuaded to remove

the steel from its front, and substitute whalebones therefor.

This will do away with that pressure which is most directly and continuously injurious, namely, over the stomach, and will also relieve that upon the lower abdomen in the stooping posture.

The degree of relief and comparative comfort which follow this procedure, will prepare the way for the next step toward disarming the corset of its power for evil. This may be accomplished by taking a pair of scissors and slashing it from the bottom to the waist-line, in two places, one on either side, about a finger's length from the median line.

There still remains the question of *distribution* of weight; and herein lies the superiority of a garment which is made to fit the shoulders, in other words the waist, as a substitute for the corset: a well-shaped waist, with buttons properly placed, to which other garments may be fastened.

Most of the waists for sale in the shops are ill-shaped and have buttons in the wrong place; those to which the skirts are fastened in front, should be so placed that the weight will fall from the shoulders in a line a little to the outer side of the breast. This is one of the little details which make all the difference between success and failure in persuading a patient to adopt a more comfortable mode of dress.

The “Equipoise” waist is, upon the whole, the best now in the market. It is well shaped and well made, the whalebones may be easily removed and replaced, and a hot

water bath will restore a good bone to its shape.

A very good little garment is the "Vassar Girdle;" this is designed primarily to support the bust, but may be utilized by the addition of buttons, for distributing and carrying the weight of clothing, and takes the place of a corset. It has been used with great satisfaction for this double purpose and may be confidently recommended.

There are other ways in which thought and ingenuity applied to this subject bring

about good results, but it is hardly practicable to indicate them in this present paper.

The few suggestions here offered, are by way of alleviating the troubles inevitably attending the present method of woman's dress, which is based upon entirely wrong principles. Until some one wise enough and great enough shall initiate a revolution which will take hold of the "root of the whole matter," we can only study alleviators, and go on as best we may with their aid.

RACHITIS.

BY J. MADISON TAYLOR, M.D.

Professor of Diseases of Children at the Philadelphia Polyclinic, Neurologist to the Howard Hospital, etc.

[Continued from Vol. VI, No. 27, page 276.]

THE chest is frequently deformed by the bending-in of the ribs at the costo-cartilaginous junctures and lateral depressions over the lower third of the thorax and eversion of the lower borders of the ribs. The ensiform cartilage is sometimes markedly depressed, leaving a circular concavity. The cause for this is largely atmospheric pressure from without not counterbalanced by internal resistance upon the malleable ribs.

The spine is not generally deformed, but kyphosis or posterior protrusion is the most common; occasionally, there is rotation. The pelvis rarely escapes some distortion, generally diminution of the antero-posterior diameters. The limbs undergo conspicuous changes in shape from the malleable state of the bones, and slight muscular strains increase these as activity progresses.

Enlargements of the epiphyses is the characteristic feature, commonest at the wrist, sometimes at the elbow. The long-bones suffer deformity, particularly of the legs, from the pressure on them, while attempts are made at standing. This induces bowlegs and knock-knees, rarely a curve in the femur. While sitting, however, a more marked double curve is given to the legs from the cross-

legged attitude long continued. In the early stages of deformity, while the bones are so soft they can be bent by hand, braces are of most value. These must reach above the knee and should be provided with rods placed opposite the points of greatest convexity, and exert continuous pressure. Success varies with the individual case. If the bones cannot be remodeled thus, osteotomy is demanded, and the orthopedic surgeon should be consulted early in the case, not only to operate, or brace, but to critically watch progress.

After the third or fourth year, braces usually do little good without some form of cutting operation on the bone itself. Many children are too poor to pay for braces, which, to be efficient, must be well made and kept in perfect repair, and plaster of Paris bandages may then be used with advantage. The different bones of the same individual vary in density; the leg of one side and the thigh of the other may be soft, while the corresponding bones on the other side may be hard; but this, of course, is not the rule.

For a description of the braces most commonly used, the reader is referred to the works on orthopedic surgery, as well as for

the details as to the operation of osteotomy. This latter consists in cutting through the femur at the bone end and straightening the thigh for knock-knees, or through to the tibia and fibula for bowlegs. It may be necessary to operate upon both the femur and tibia and fibula at the same time before the leg is straightened. The bone may be simply cut through and the leg straightened, or, if the deformity be very great, a wedge-shaped piece of bone may be cut out of the convexity of the bone, to insure a good result.

The limb should then be enveloped in cotton or a plaster of Paris bandage applied to keep the limb straight.

In young children especially it is sometimes well to suspend the limbs from a frame at right angles to the axis of the body; this insures extension and at the same time keeps the bandage free from being soiled with the urine and feces. The limb should be kept longer in plaster than for the healing of an ordinary fracture, as the repair of bone is somewhat delayed owing to the rachitic condition.

PATHOLOGY.—While true that the most marked changes are observed in the ends of the long bones and ribs, the morbid anatomy is that of a constitutional disease, a blood dyscrasia affecting the nutrition of nearly all the tissues of the body, and thereby producing disease in the osseous system, which is closely allied to inflammation. The primary lesion is hyperemia of the periosteum, the marrow, the cartilage and of the bone itself. The disturbance of the normal growing bone causes changes in the bone already formed. The cartilage cells of the epiphyses consequently undergo increased proliferation from four to eight times more than they do in a normal growing bone. The matrix is softer; as a result the bone which is formed from this abnormal cartilage lacks firmness and rigidity. The increased proliferation of cells makes the epiphyses larger, swollen in appearance,

irregular in outline, and very much softer in consistence. The high vascularity favors the process of absorption in the bones already formed, so that the relation between removal and deposition of lime salts are disturbed, absorptions having taken place more rapidly. It has been experimentally proved that hyperemia of bone causes defective deposition of lime salts. In the parieto-occipital region and in some other cranial areas ossification is retarded, so that the bone readily yields to pressure by the finger (*cranio-tabes*). The fontanelles are not promptly closed by reason of delayed ossification. The frontal and parietal protuberances are very much enlarged, due to exaggerated proliferation of the periosteum, so that the head acquires a broad forehead, with characteristic frontal eminence, a condition mistaken for hydrocephalus. When ossification begins to take place the bones become large, heavy and irregular in outline. These changes correspond to the graphic clinical manifestations—bowlegs, knock-knees, pigeon-breast, spinal curvature, and square cranium. The wrists, ankles, knees, ribs at points, at the junction of the bone and cartilages, become enlarged; on the ribs they occur in a series simulating beads, and is called the “rachitic rosary.” The prominent visceral changes are the enlargement of the spleen and liver.

PROGNOSIS.—The disease is not fatal of itself, but death often readily results in the enfeebled organism from some intercurrent malady. Under proper treatment recovery takes place, with some resulting deformity.

TREATMENT.—As has been said, we may assume that nearly one-third of all children of our city population and perhaps a fourth of others, either exhibit the evidence of rickets or may readily acquire the disorder. Therefore, a thorough consideration of detailed treatment cannot be out of place. We will review here an outline of such system-

atized measures as are suitable. The first consideration is prevention; here it is necessary to face the question of accepting or rejecting degenerate immigrants; a matter which is probably about to play a very important part in politics, just so soon as either the community is roused, and through it the authorities, to the imperative need of legislation against the steady influx of degenerates, or so soon as this matter can in any way be made to pay legislators for adequate attention. So far as economy is concerned it goes without saying that the country would be paid a handsome return for any reasonable expenditure directed to the keeping out of our midst, these helpless or partly helpless paupers, who not only are a serious burden upon our resources, but a steady source of infection of our wholesome people; or, to put it mildly, these half-disabled or half-efficient folk cumber the ground which should be occupied by better citizens. The next step is to give our attention to pregnant women, who are of these devitalized classes and races. If this can be done much may be accomplished. Bathing, good air, sun light, and abundant, well-cooked food will accomplish much. A short residence in the country would do more. The relief of the coming mother from exhausting labor and overwrought emotion is also of great value. The result of such care may be a pretty fair homunculus upon these little ones, continued liberalizing influences will work to great advantage, and a few generations of such measures regenerate a moderately good population. The rachitic baby should be kept in a room which faces the south, whence come the best breezes in Summer, and sunlight at all times. It should be kept in the neighborhood of 70 degrees Fahrenheit, and the windows much open or on kept-sheltered housetops or piazzas, itself wearing extra clothing the while. Under-

wear should be of wool, thin in summer and thicker in winter; bathing should be daily, as much for tonic action as for cleanliness. If the extremities become chilly after this, or at any time, it is easy and valuable to apply external heat. The breast milk of the mother is always the best, and during lactation she should take tonics and extra food, rich in fats and albuminoids. The mothers of the poorer classes fill themselves up on bread and tea, while nursing a baby, it had better be on milk and meat. It is important that a mother of babies showing rickets should sacrifice something to the needs of lactation. This is true, even though there has been a parturient nephritis. Good breast milk when insufficient is of little use if supplemented by coarse, ill-cooked "table food." Poor breast milk is better than none, because it can be made better, unless the mother be distinctly infected, as by tuberculosis. The natural supply can be supplemented by suitable food better than to depend upon hand-feeding alone. For rachitic babies this extra diet is nearly always necessary, and certainly after eight or ten months, and this should be carefully guarded cow's milk modified by water, milk, sugar and cream, an alkali, and possibly some "casein breaker." This should alternate with strong animal broths and but little or no starch food. Starch feeding produces rickets in those predisposed. Weaning should not be allowed in the hot months, certainly in our large cities. In the preparation of milk, the first requisite is proper preparation as soon as it leaves the cow, and this is receiving most gratifying attention at the hands of dairymen increasingly from year to year.

If the milk be sound and kept so, it need not be subjected to heat to fit it for use. As ordinarily supplied, it will require Pasteurization or sterilization. Simple boiling does fairly well, especially for older children.

Pre-peptonization is of great use, particularly for one or two meals in a day, and along with supplemental diet.

Properly-prepared cereal solutions, as of barley, or oatmeal water, are not only a cheap and convenient diluent, but of real value to separate particles of casein, and prevent lumpy curds in the stomach, but they are, in themselves, nutritious. They are far better when diastase has been added. The amounts and intervals of feeding are of as much importance as quality. Breast-fed infants, of vigorous stock, may survive some insufficiency, but the feeble, rachitic infant should receive over- rather than under-feeding. The value of over- or forced feeding in children has not been studied enough except where the food was of bad quality.

It often happens that a very young child, especially a rachitic one, will greedily devour and thrive notably on a liberal diet of beef and mutton.

Constitutional treatment must be instituted in the first half year or year to be efficient. Little can be expected after the second year, for by that time we have chiefly the effects of the disease, not the disease itself to deal with.

For the deformed chest, hence cramped lungs, regulated gymnastics are indicated. Rarified air deserves more extended trials. For kyphosis, extension and postural treatment is indorsed, along with prolonged rest in bed.

MEDICINAL TREATMENT.—Rachitic children are particularly liable to gastric and intestinal disturbances and weaknesses; their stomachs are usually hyperacid and need alkalis; for the relief of this, in the infant, pancreatic extract with soda is of use; in older children, well-diluted muriatic acid and pepsin is better; also there should be supplied other secretions of the intestines which assist assimilation as bile. Peptinzyne, purporting to contain the active ferment from most of the intestinal glands, has done good

work for us, also pancrobin. It may be well to mention here the dry-malt preparations useful if there be no diarrhea, and to be added to starch food or swallowed, such as Forbes' or Taka diastase. The great remedy for rickets is cod liver oil, because of its fat, and not less because of its bile salts, and of less than half its value if these biliary principles are destroyed or injured in the preparation. To cod-liver oil may be added with advantage raw eggs, glycerin, or sirup, and some spirits or heavy-bodied wine or cordial. If we could be sure of getting a cod-liver oil made from fresh livers of fresh cod-fish, and prepared by cold expression, we would have the best thing obtainable. Some years ago, this was forthcoming at the hands of an old sea-captain, named Stone, of Swampscut, Mass. A favorite preparation of ours is: Place in an eight ounce bottle one raw fresh egg, glycerin one ounce, maraschino (or curacao, or sherry wine, or port wine), of each one ounce, cod-liver oil six ounces; shake thoroughly and keep on ice, and give a dessertspoonful before two principal meals. One drug which enjoys a large reputation in overcoming with great promptitude and thoroughness the defects of bone growth in rickets, is phosphorus. This should be given in small dose, one two-hundredth to one one-hundredth of a grain after meals. Iron manganese and arsenic are of value for the anemia. To relieve sweating, atropin, picROTOXIN and the cardiac tonics are useful, as well as aromatic sulfuric acid.

MISSISSIPPI VALLEY MEDICAL ASSOCIATION.—The next meeting of the Mississippi Valley Medical Association will be held in Louisville on October 5, 6, 7, and 8, 1897. All railroads will offer reduced rates. The President, Dr. Thos. Hunt Stucky, and the Chairman of the Committee of Arrangements, Dr. H. Horace Grant, promise that the meeting will be the most successful in the history of the Association, and this promise is warranted by the well-known hospitality of Louisville and Kentucky doctors. Titles of papers should be sent to the Secretary, Dr. H. W. Loeb, 3559 Olive Street, St. Louis.

THE PHILADELPHIA POLYCLINIC

Brief, practical, original articles, and news of general professional interest are solicited for publication in this journal. Contributions accepted will be paid for on publication, or, if desired, and so indicated on the manuscript, 250 reprints will be furnished in lieu of other compensation.

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PHILADELPHIA, JULY 10, 1897

THE PENNSYLVANIA MEDICAL JOURNAL.

THE first number of the new organ of the Medical Society of the State of Pennsylvania is at hand. It is a creditable sheet, and gives promise of great usefulness. In size and general appearance it is modelled upon the *Pittsburgh Medical Review*, of which it is the legitimate successor; and regret at the loss of the *Review* merges into congratulation upon the birth of the *Pennsylvania Medical Journal*.

Under the fearless and upright guidance of the little knot of young men who sought to establish in the Smoky City a medical journal that should represent the best achievements and highest aspirations of the profession of medicine, the *Pittsburgh Medical Review* was from its first to its last issue, an honor to its projectors, a power for good among its readers. Despite opposition and revilement, it kept on in the straight path of truth and right. Medical ethics to it, was a living force, not a mere name. Its pages were never soiled by self-seeking, by abuse of enemies, or by the serpent trail of the nostrum-advertiser. In the long and weary struggle to deliver the *Journal of the American Medical Association* from bondage to

quackery and greed, it was a leader, and did valiant service. That the liberty it helped to win has not been held, is not the disgrace of the *Review*.

It ceases publication with a record of noble aims steadfastly maintained, of honest work well done, making a memory that should forever be a precious treasure to its publishers and editors.

The *Pennsylvania Medical Journal* begins with the prestige of the *Review's* achievements, reinforced by the power and honorable traditions of the great society it represents. With Dr. Koenig as its publisher and manager, and with the assistance of the excellent committee on publication, it must be a success. It will carry the light of science into every nook and corner of the State, and it will practically exemplify the clean spirit and unselfish aims that are the priceless inheritance of the medical profession. Blessed be the memory of the *Review*; and glorious be the future of the *Journal*.

S. S. C.

Society Proceedings

PHILADELPHIA COUNTY MEDICAL SOCIETY.

DR. T. B. SCHNEIDEMAN presented a paper on

THE PROPOSED OPERATIVE TREATMENT OF HIGH MYOPIA.

Within the past few years operation for the relief of myopia of high degree has gained extraordinary headway upon the continent of Europe. The procedure consists in removal or destruction of the crystalline lens, and appears to have been accepted with enthusiasm by most eminent oculists. Thus Professor Vossius declares that the operation is to be placed upon the same plane as that of iridectomy in glaucoma. Professor Cohen of Breslau ascribes a more beneficent effect to this procedure than to the operation for cataract, for the former, he states, gives the blessing of sight to the young who have never enjoyed it, while the

latter restores it to the aged who have the memory of their former power and who will live to enjoy the same, as a rule, for but a limited time.

The introducer or reviver of the operation is Dr. Fukala, now of Vienna. In myopia the images of distant objects are formed not upon the retina but in front of that membrane in the vitreous humor, owing to increased length of the eye-ball. This condition is irremediable; but it can in a measure be compensated for by displacing the focus further backward so as to bring the images upon the retina. This can be effected either by a concave lens or what amounts to the same thing optically, by the removal of the natural biconvex lens of the eye. Fukala and his followers assert that while it is possible theoretically to correct high myopia by lenses, like other anomalies of refraction, the glasses cannot be worn. Patients thus treated, he states, are unanimous in declaring that they cannot bear correcting lenses on account of the resulting vertigo, headache and uncertainty of movement. Concave lenses of high degree possess certain baleful properties which are irremediable. These are principally apparent diminution in the size of objects, and false projection, causing them to appear to be more distant than they really are. For these reasons patients prefer the imperfect vision of the naked eye to the discomfort produced by their glasses. This is the major premise of the argument and the fate of the operation will largely depend upon its acceptance or rejection. Fukala himself admits that if correction by lenses were possible the need of operative interference would vanish.

It is of interest to note that increased length of the eye-ball was recognized as the cause of myopia before the year 1700 by Boerhaave and demonstrated anatomically by Morgagni. Richter, a century later, and not Beer as is usually stated, was the first to propose extraction or couching of the lens for the relief of this condition. Subsequently attempts at cure were made by an orthopedic apparatus (*myopodiorthotikon*), by convex lenses, by concave lenses of decreasing strength, by magnetism and by division of the external muscles of the eye-ball; and favorable results were reported from each and all of these irrational procedures.

In 1858 Mooren, at the Heidelberg Congress, broached the question of extraction of the transparent lens in high myopia. The proposition was received unfavorably, being opposed vigorously by the two great leaders of ophthalmology, Graefe and Donders. Graefe especially on the ground that posterior sclerotic-choroiditis being the cause of the malady, the operation would be incapable of staying the progress of the disease, not to mention its dangers. Donders stigmatized the suggestion as most unwarrantable. In his opinion the resulting aphasia would entail no decided advantage and, furthermore, the accommodation would of course be sacrificed. Much has been made of this latter point and the loss of the accommodation has been loudly deplored. This objection appears to be the only one that the introducer of the operation thinks it worth while to meet. He argues correctly that the function is of no value to the shortsighted eye without a lens, being indeed under these circumstances a disadvantage, for the effect of it is to bring the working point, already too near the eye, still closer, and thus prove an active cause in furthering the progress of the myopia. All this is undoubtedly correct. But how does the case stand when the myopia is corrected by a lens? The advocates of the operation dismiss the question with the statement that under no circumstances dare a myope of high degree attempt near work with correcting lenses which compel the use of the accommodation as in emmetropia. This assertion, which is the minor premise of the proposition, is, to say the least, open to question.

Whatever may be thought of the operation and what its ultimate fate may be, the experience of those who have practised it has brought to light some interesting and unlooked for facts. Among these is the knowledge that the loss of physiologic accommodation is not equivalent to entire inability to accomplish near work without a glass; a substitute for this function is furnished by the improved optic conditions of the aphasic eye as compared with the disadvantages inherent in the highly myopic eye (without a correcting lens). Numerous cases are adduced in which a considerable range of accommodation, or rather ability to distinguish near objects at varying distance with the same glass, was present after operation, thus in one case:

- M, 13 D, before operation, with + 8 Jaeger's No.
 7 was read at 12—54 c.m.
 M, 18 D, before operation, with + 4 Jaeger's No.
 7 was read at 12—75 c.m.
 M, 17 D, before operation, with + 4 Jaeger's No.
 7 was read at 15—39 c.m.
 M, 16 D, before operation, with + 4 Jaeger's No.
 7 was read at 18—49 c.m.
 M, 16 D, before operation, with + 6 Jaeger's No.
 7 was read at 35—50 c.m.

Another circumstance brought to light by these operations has been the extraordinary diminution of refraction following the removal of the crystalline lens. Whereas the emmetropic eye after extraction of cataract is left hyperopic 10 or 11 D, it was naturally to be expected that removal of the clear lens in myopia would bring about a similar diminution in the refraction. This, however, is not the case; 15 or 16 D. is the rule. In none has it been found to be as small as 10 D. In one case a diminution of 44 D is reported. This seems to prove that besides increase in length of the axis another factor comes into account in these high myopias, namely, increased curvature of the crystalline lens. This has actually been found to be the case, as shown by examination of the lens after removal. In other cases the lens was found to be actually less curved than normally. It seems justifiable therefore to classify high myopia into (1) pure axial myopia; (2) axial and lens myopia; (3) pure lens myopia. This classification will explain the extraordinary variation in the degree of diminution obtained in different eyes by the removal of the lens.

Some of the indications and counter-indications of the operation follow: Age; this does not appear to be much of a factor one way or the other; successful results have been reported up to the age of 64; although the younger the subject, other things being equal, the better the outlook. Von Hippel and Sattler have made the important observation that the lens does not undergo sclerosis in high myopia. The visual acuity should at least equal 0.1. Jaeger No. 1—certainly No. 2—should be read fluently. Where these conditions are not fulfilled not much is to be expected from the operation.

Complications on the part of the choroid are not to be regarded as counter-indications, provided they are not of high degree. In

the latter case hemorrhage or possibly even detachment of the retina may occur. But even when the choroid has suffered seriously, inasmuch as the operation is the only measure that promises anything, it may be justifiable to assume the risk.

Both eyes are to be operated upon.

The operation itself consists of two stages:

(1) extensive dissection, (2) extraction of the disintegrated lens. The usual rules of asepsis being observed and the eye cocainized, a narrow Graefe knife is carried through the margin of the cornea and made to penetrate the lens deeply; which is then to be divided primarily in its center by several (three or four) cuts; if necessary the knife may be entered a second time at the same sitting in order to divide the lens thoroughly by crucial incisions. The patient is to remain in bed the first day. Spasm of the sphincter of the pupil occasionally occurs in spite of atropin; but it readily yields to cold applications. The second part of the operation consists in extraction of the lens masses. After dissection of the lens, which may have to be repeated two or even three times, sooner or later (often upon the next day) a separation of its substance takes place and thus shortly degenerates into a thickish fluid mass. This fills the anterior chamber, covering the iris. Simultaneously subjective and objective symptoms of irritation arise, which, if persistent, may lead to loss of the eye from inflammation and increased tension. The subjective symptoms consist of pain in the eye, in the brow along the course of the branches of the fifth nerve, and photophobia so that the eye cannot be opened. Upon palpation the patients experience a peculiar sensation of pressure and characteristic pain. There is considerable conjunctival and ciliary injection with lachrymation. The surface of the cornea is lusterless. The tension under these circumstances is always increased. In this condition no time is to be lost; the masses must be extracted at once. The operation is usually performed with a keratome, though a knife may be employed. The incision is to be made at a short distance from the sclerocorneal junction, to avoid prolapse or incarceration of the iris. It may have to be repeated two or three times. It is recommended that the incision in the cornea be

made at right angles to the meridian of greatest curvature, previously determined by the ophthalmometer. Cocain-anesthesia usually suffices. In children or nervous subjects and when there is great photophobia general anesthesia is preferable. The treatment covers a period of from three to six weeks. During this time the patients, when necessary, may follow some light occupation or attend school. Physical exertion is to be avoided, from risk of detachment of the retina. Iridectomy is omitted except in the case of older subjects.

The advantages claimed for the operation are: (1) clear distant vision without a lens; (2) improvement in the visual acuity. The latter is often very great; nine-fold has been noted. It sometimes does not take place until after the lapse of many months. This result is probably to be ascribed to improvement in the function of the retina in consequence of experience in accurate vision which it had never before enjoyed. (3) Restoration of binocular vision through recession of the far point. (4) Decided diminution in the refraction of the eye. (5) Cessation of the progress of the myopia.

Up to the present time more than one thousand operations have been performed and statistics published. Those who have had experience with it are enthusiastic in commending it.

I have had no personal experience with the operation, but have had the opportunity of following a single case in the practice of another gentleman; and the course of this one at least demonstrated that the operation is not so free from risk as the advocates of it claim. The experience of the oculists of this city will, I believe, agree with mine that it is not true that all myopes of high degree are unable to wear correcting lenses. It is altogether probable that those who make this assertion have never given that method a fair trial. Many cases could be adduced in which the subjects were very comfortable with their glasses, and would have little or nothing to gain from removal of their crystalline lens. It is undoubtedly true that to some concave lenses are a troublesome burden and these may be fit cases for the operation, but they constitute a small minority. Many others require a different

arrangement for near and distant vision; these may be supplied with bifocal glasses, or with two pairs, or perhaps with extra glasses to be added either to their distance ones for near or to their near for distance, but some plan can almost always be devised.

To correct these cases properly a reliable objective test of the refraction is indispensable in very many instances; the visual acuity is so low that the subjective method alone will often fail to lead to the proper combination of sphere and cylinder, for most of these myopias are complicated with astigmatism, and failure to correct this properly naturally means dissatisfaction with the glasses. So far as concerns the benefits claimed for the operation, these are also to be derived from correcting lenses. Cessation of increase of myopia, recession of the working point, clearer distant vision, restoration of binocular vision, when possible, all these advantages are to be expected from proper correcting lenses.

In the Clinics

Under the Editorial Charge of DR. OAKLEY W. HERMANCE.

In prescribing for a mild attack of *urticaria* in an eczematous subject, Dr. Cantrell said that small doses of a saline would often relieve the condition quickly. He gave fifteen grains of magnesium sulfate four times daily to be taken preferably in half a glass of warm water.

* *

DR. YOUNG called attention to the location of *sinuses in hip disease*. The diagnosis and prognosis being influenced by their position. He has constructed a table including all these sinuses, and from it a prognosis can often be made which will influence the course of treatment indicated.

* *

Excision of the tonsils in older children is accomplished more effectively in Dr. Gibb's clinic without the use of general anesthesia. The child can be held firmly by a skilled assistant and every step of the operation may be seen. In the event of hemorrhage, the danger of aspiration is eliminated and measures for its control may be satisfactorily employed.

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EXPERIENCES WITH LORETIN IN CUTANEOUS THERAPY.

BY J. ABBOTT CANTRELL, M.D.

Professor of Diseases of the Skin in the Philadelphia Polyclinic and College for Graduates in Medicine; Dermatologist to the Philadelphia and Frederick Douglass Memorial Hospitals, Philadelphia.

WITH the formidable chemical name M-iodo-o-oxyquinoline-ana-sulphonic acid a new product has been advanced as a substitute for iodoform, but owing to the great difficulty in pronouncing the scientific name the trade name of "loretin" has been accepted. This remedy was discovered by Ad. Claus in conjunction with Dr. Giwartovsky (Studies on ortho-oxyquinoline ana-sulphonic acid, Inaugural Dissertation, Freiburg in Baden, 1893). Professor Schinzinger, after invitation of Claus, arrived at the following conclusions in his experiments (Scientific Congress, Nuremberg, 1893):

(1) The action of loretin upon granulations and healing processes can only be described as an extremely favorable one, and undoubtedly in this respect loretin is superior to iodoform.

(2) Toxic symptoms and disturbances of the general health, such as are observed when iodoform is employed, have not been seen in a single case in which loretin was used.

(3) The urine does not show traces of loretin.

(4) The antiseptic action of loretin is unaccompanied by any inflammatory irritation in the vicinity of the wound; on the contrary eczema already present rapidly disappeared under loretin treatment.

(5) Loretin and its salts are not only completely free from odor, but effect a rapid

disappearance of the malodors present in purulent secretions and decomposing tissues.

This writer also claims to have obtained excellent results in the treatment of erysipelas with a loretin collodion (2 to 10 per cent. emulsions), also to have healed lupus of the nose with the same application after an energetic use of a caustic pencil, and to have healed extensive burns with very little scarring as well as curing numerous boils in a comparatively short time.

Fensling (*Deutsche Thierärztliche Wochenschrift*, No. 39, 1897) refers to the cure of an eczema on different portions of a dog's body after eight days' treatment.

In the experiments upon cutaneous diseases which were carried out some two years ago in my clinical service this drug was given thorough trial in all the cases that presented, and while the preparations advised are comprised in the following list I find that some changes were made owing to the greater or less activity of the agent in this class of cases.

(1) Aqueous solutions of from 1 to 4 per cent.

(2) Ointments, with petrolatum or zinc oxid ointment, of from 1 to 12 per cent.

(3) Collodion in solutions of from 1 to 12 per cent.

(4) Powders with ordinary starch from 10 to 50 per cent.

ECZEMA.—In the selection of eczematous

conditions for treatment with loretin I first chose those having a more chronic inflammation rather than run the risk of some disagreeable complications. After repeated trials in this direction I acted boldly in using the remedy in the more acute condition. However, my expectations in the result of its action were not in the least gratified. The treatment did not give any fair result in cases of the more chronic character and still less in those of the acute variety, some degree of inflammation being apparently caused in every case by the action of the loretin. This drug when used in the more chronic cases in which infiltration and thickening were apparent, with complication of itching, did not in the least relieve the feelings of the sufferer nor did its action upon the diseased surface give any idea that it was curative. In the acute or subacute inflammations I was rather disappointed, in that in most of the cases, whether the remedy was used in mild proportions or the stronger applications, the curative result amounted to nil, while the treatment often increased the amount of inflammation. In some of the vesicular and pustular manifestations the remedy seemed to clear away the summit of the lesions and cause pain upon the floor. In some instances I observed a very high degree of inflammation almost akin to that seen after applications of iodoform. In one case that I now recall the treatment was followed by a number of small ulcerations around the surface treated and in this particular resembled a case of iodoform poisoning which I reported some years ago in the *Medical News*.

ULCERS.—In ulcerations, whether of the syphilitic or non-syphilitic type, the results were not, on the whole, satisfactory. In some of those of non-syphilitic origin, in which decided stimulation was required, I found that loretin gave fair results until the grade of inflammation caused a change of treatment. I be-

lieve that in the early treatment of old chronic ulcers found upon the anterior portion of the legs, loretin will be found somewhat beneficial, but after the refreshing of their surfaces has been accomplished I deem it wise to advise a more astringent application. Syphilitic abrasions either of superficial or deep type may likewise be benefited until this freshening process is completed, but after this, as in the non-syphilitic variety, we must resort to astringent treatment. While referring to this result in syphilitic ulcerations I do not wish to be understood to discountenance internal medication.

ERYSIPELAS.—The results obtained in the treatment of erysipelas do not lead me to regard favorably the use of this agent for this condition. Of the many cases treated for a time not one was in any manner benefited. In one in which I persisted in the use of loretin I failed to see any change either as a check to the disease or a cure.

VEGETABLE PARASITIC AFFECTIONS.—Of the vegetable affections I found that loretin had a curative effect on the superficial variety or tinea circinata, but, as this result is usually gained by the mildest of the parasitocides in most of the cases presented, I do not feel that we can claim anything in particular for the agent under consideration. In the form of ringworm which is observed upon the bearded portion of the face, tinea sycosis, or in that variety which occupies the scalp region, tinea tonsurans, I gave long and extended trial to loretin, but after thorough applications had been made in various ways I did not see any reason to believe that the remedy could be relied upon as a cure. The mildest of all vegetable parasitic affections, tinea versicolor, responded to the action of loretin in mild ointments, but not in a very short time. As it took repeated applications to reach this end, and as this disease is usually affected by the mildest of antiparasitic remedies, I do not think we have gained

much in our therapy. *Tinea favosa*, of which five cases were presented during the time of experimentation, were placed under treatment with ointments of this agent, which did not prove efficacious. Naturally as was to be expected the treatment removed the crusts and scales that were present, but otherwise no result was noted.

ANIMAL PARASITIC AFFECTIONS.—Scabies was treated by the application of loretin in ointment form in most or all of the instances which presented themselves at the time of these experiments, but after repeated efforts in this direction I failed to find a single instance wherein the result had given any positive assurance that we had found a useful drug or parasiticide for application in this affection. In some of the cases decided inflammation was produced by these applications. Pediculi ravaged their usual sites, although numerous applications of this agent were made, not alone in one form, but selections were made from all of the methods of application, and after several months of watchful care I did not feel justified in further experiment. In using this agent upon the scalp I usually applied the watery solution, but when using it upon the body I made use either of the watery solution or ointment.

ACNE.—A few cases of acne fell under treatment of this agent and possibly—if the assertions of some of the writers of the present day are correct that acne and acne rosacea are both alike due to a germ which finds entrance into the follicle or gland—the treatment was well advised, because of the antimicrobial properties this drug is said to

possess; but the records show that no result was gained in my experiments.

FURUNCLES — CARBUNCLES — BURNS — SCALDS.—I can not agree with Schinzinger in the results reported by him in the treatment of either furuncles or burns, as the results noted in my case book state that in both of these conditions the result was rather unsatisfactory. In cases both of burns and scalds I found that the pain was not decreased and no effect of a curative nature produced. It was a thorough waste of time to prescribe loretin for either furuncles or carbuncles, as no change whatsoever was noted.

DERMATITIS—DERMATITIS VENENATA.—Like the result in treating eczema was the result in the use of loretin in its application upon ordinary inflammations from whatsoever cause. In ivy poisoning the drug was useless.

IMPETIGO CONTAGIOSA.—The use of loretin in cases of impetigo contagiosa did not give any decided results, but exceptionally cases were noted to be slightly benefited with mild ointments.

SEBORRHEA.—Seborrhea failed to improve under the action of loretin.

LUPUS.—During the time in which I was carrying on these experiments with loretin, I had the good fortune to have several cases of both lupus erythematosus and lupus vulgaris under my care and these were subjected to the same experiments as the other cases, but with utter failure.

On the whole, therefore, I conclude that loretin has an extremely limited field of usefulness as an external application in diseases of the skin.

THE CLEANSING OF SLIDES AND COVER-GLASSES.

BY EMMA L. BILLSTEIN, M.D.

Demonstrator of Histology and Embryology in the Woman's Medical College of Pennsylvania.

SLIDES can usually be satisfactorily cleansed by washing in water and rubbing dry with a clean cloth, but cover-glasses are coated with

an oily film, which water and friction fail to remove. The oxidation methods, which successfully destroy this film, involve the em-

ployment of strong mineral acids and other substances which render the manipulation tedious and unpleasant. It is simpler, and the result quite as satisfactory, to use a solvent to remove this film. After a trial of different substances, I have found the mixture known as acid alcohol, to be highly effective. This consists of

Alcohol, 70 per cent. 99 cc.
Hydrochloric acid 1 cc.

The cleansing action of acid alcohol probably depends on the presence of some ethyl chlorid—an ether possessing the customary solvent properties, and which is formed on adding the acid to the alcohol.

The cover-glasses should be immersed in the acid alcohol for about five minutes, transferred to plain alcohol, and then dried.

It is often difficult to remove anilin stains from slides and cover-glasses. For this purpose, and also for the cleaning of new cover-glasses, I have found it convenient and expeditious to use a fossil earth sold under the trade-name of "silver suds," which may be obtained of grocers or dealers in silverware. It comes in the form of a grayish-white powder, and requires no preparation beyond the addition of water. It makes a turbid solution, alkaline in reaction, and soapy to the touch, which cleanses promptly and imparts a brilliant polish. The only objection to its employment for cleaning cover-glasses lies in the possibility of the microscopic fossils adhering to the glass, but this can be prevented by washing in water or alcohol, before drying.

Society Proceedings

PHILADELPHIA COUNTY MEDICAL SOCIETY.

June 8, 1897.

DR. EDWARD JACKSON,¹ presented the following paper on

THE OPTIC TREATMENT OF VERY HIGH MYOPIA.

The value of the operative treatment of high myopia depends on the insufficiency of other measures. There can be little question as to the seriousness of the condition when not treated by some efficient method. The pictures of the helplessness and unhappy plight of the myope of high degree that have been drawn by the advocates of operative treatment are vivid and perhaps sensational, but they are not false or materially exaggerated. There can be no question but that such a myope needs help; and he is likely to appreciate the restoration of his vision as highly as the patient with cataract. The essential question is, "Cannot this help be given, cannot vision be restored, without removal of the crystalline lens?" In most cases of very high myopia I believe it can.

Treatment by Glasses.—The statements of the more enthusiastic advocates of the

operative treatment reveal pretty clearly that they do not know how much relief can be afforded by glasses. Fukala proposes operation for cases of myopia of 12 d. and upward; and says he has never seen but one case having very poor vision in which lenses of 18 d. could be worn. I have seen the highest degrees of myopia and the larger number of myopes in dispensary practice; but among one thousand cases in private practice I find the following:

CASE I.—Mrs. R., aged 31, very nearsighted from early childhood, wearing right and left—9 D. sph., under a mydriatic was found to require the following:

Right—14 D.—2.50 cyl., ax. 15°.

Left—20 D.—2 cyl., ax. 180°.

With these lenses her vision was 4/9 partly in the right eye, and 4/20 in the left. The constant wearing of these glasses entirely relieved her symptoms, which included chronic inflammation of the lids and repeated styes. After four months she had become quite accustomed to them and felt if her "eyes would only stay as they were" she would be "quite satisfied with her sight."

¹ Professor of Diseases of the Eye in the Philadelphia Polyclinic, Surgeon to Wills' Eye Hospital.

CASE II.—Miss T., aged 52, a librarian, constantly reading and writing; previously wearing—8 D. sph., was found to require right—15, left—14 D., giving vision equal to 15–20 partly in each eye. These lenses she wore constantly, except for near work, when lenses 4 D. weaker were employed. Although the wearing of strong lenses was commenced after 50 years of age they soon became entirely satisfactory, and the patient has for three years suffered practically no disability from her high myopia.

CASE III.—Mrs. T., aged 56, with

Right—13 D. sph.

Left—13 D. cyl.—1 D. cyl., ax. 170°.

Had vision 4–9 partly. With the foregoing for distant vision she was given lenses 3 D. weaker for near work. A year later the eyes were well and the glasses satisfactory.

CASE IV.—Mrs. K., aged 46, wore with comfort for distant vision:

Right—16 D. sph.

Left—17 D. sph.

Giving vision 4–12 partly, with weaker lenses for near work.

The citation of other cases is unnecessary. I have seen still stronger lenses (in one case 23 D.) used with comfort. Very high myopia is, at least in Philadelphia, so unusual that no one observer is likely to encounter very many cases; but such cases are reported by others. Harlan reports, *Transactions of the American Ophthalmological Society*, 1892, page 275, two such cases, of especial interest on account of the long time they were under observation. One patient wore 16 D. sph. lenses, giving vision of 20–50, with no increase in myopia or diminution in vision in seventeen years. Another patient wore 14 D. sph., giving vision of 20–50, and at the end of sixteen years had an increase of only 1 D. in the myopia, and no diminution in vision.

It seems to me abundantly established that such strong glasses can be worn, and worn constantly; not only with benefit to vision, but with the greatest possible safety to the eye, and with the best prospect of retaining vision without further deterioration. That the opposite view should be held and advocated may seem strange, yet this error is one that can be readily explained.

Why Correcting Lenses are not Appreciated.—In the first place, such lenses can prove satisfactory only when accurately adap-

ted to the eye. They must be of just the right strength, with the right cylindrical element turned in the proper direction, and so mounted as to reduce to a minimum the unpleasant effects of strong lenses and give the maximum of service.

Again, there has been an unfounded fear that myopia is liable to be increased by *normal* use of the accommodation. That such a fear is not well grounded I have tried to show in a paper read before the American Ophthalmological Society in 1892 (see its *Transactions*, p. 359), including reports of 27 cases of myopia under observation from three to nine years, while wearing their full correcting lenses. In the discussion of that paper it came out that the several myopes among the ophthalmologists present were themselves all wearing full correcting lenses without any evidence of harm. That excessive or abnormal accommodation may lead to increase of myopia need not be disputed. The error to which attention is called is the belief that the myopic eye cannot exercise normal accommodation, or is injuriously affected by it.

Another error, on which the fear of strong concave lenses is based, lies in the reasoning that, as lenses incompletely correcting myopia often prove very injurious, stronger glasses would necessarily prove more injurious. As I have pointed out in the paper referred to and elsewhere (*Journal of the American Medical Association*, Nov. 19, 1887) the incomplete correction of myopia is certain to exert a very harmful influence which the complete correction never exerts. The incompleteness of the partial correction is partly overcome by looking obliquely through the lenses; and thus increasing their effect. If the correction is incomplete the myope can thus improve his distant vision, but only by introducing an astigmatic effect that is altogether harmful. With glasses that do not quite correct his myopia, the myope has the constant temptation to look obliquely, so as to see more clearly; and he does so at the cost of very serious eye-strain.

The complete correction of myopia, on the other hand, gives the best vision of which the eye is capable when the glass is in its proper position, and the visual axis perpendicular to it. Any departure from this relation of the visual axis to the lens

makes vision worse, so that with the full correcting lens the myope has every inducement to use his lenses properly. As a matter of fact, the disastrous increase of myopia so often noted with incomplete correcting lenses does not occur when the full correction is worn.

Still another cause for the impression that high myopia cannot be relieved by glasses is found in the difficulty of becoming accustomed to such glasses. Correcting lenses are never fully satisfactory when first worn. Only incomplete corrections are the best at the start. The difficulty of becoming accustomed to correcting lenses increases with the age at which one begins wearing them, and is in some measure proportionate to the strength of the lenses. Very high myopia is usually found in adults, often in those who have reached or passed middle life. Hence, correcting lenses for high myopia usually entail much difficulty when first worn, and some time must elapse before their beneficial effects are manifest. The patient who has not enough faith in his medical adviser to overcome this first difficulty, as well as the ophthalmologist who has not enough confidence in his own work to withstand the first impression of the patient, is therefore pretty certain to condemn the correcting lenses for very high myopia. Like other good things their benefits cost something, and those who will not pay the price or will not suffer temporary annoyance, cannot secure them.

The foregoing cases give my experience with three older patients, and I have not yet encountered a patient under 40 years of age who was not able ultimately to wear with comfort his or her correcting lenses, if a fair effort was made to do so. The inconvenience encountered in becoming accustomed to such lenses seems to me, and to most patients, trifling, as compared with the risk, loss of time, and difficulty attending removal of the crystalline lens.

Cases for Operation.—For the mass of cases of even very high myopia, therefore, I believe that operative treatment should not be considered. Still, this probably has a certain limited field of usefulness. In the first place there are cases of high myopia in one eye, with the other eye slightly myopic or even hyperopic. Patients thus affected

can never get binocular vision through a lens correcting the monocular myopia. The usefulness of the defective eye, and the chance of some binocular vision, will be greatly improved by removing the crystalline lens from the myopic eye. The difficulty in applying the method to cases presenting such condition that the patients, having good vision in one eye, do not care to undergo the trouble and expense of having the defective eye operated upon.

Secondly, in cases of high myopia with slight opacity of the crystalline lens it has seemed to me proper to remove the lens, when if the refraction had been more nearly emmetropic the condition of the lens would not have justified operative interference. Such cases I have treated by the usual method for extraction of unripe cataract with or without previous massage of the lens, rather than by the plan indicated by Fukala.

Finally, there are some cases of very high myopia among the illiterate workers at coarse kinds of manual labor, who will not wear glasses; who would find glasses an inconvenience and serious expense; and yet who are practically blind for much of the class of labor that they are otherwise able to perform. For these the extraction of the lens seems to me a perfectly proper procedure and one to be distinctly advised, especially as the degree of vision afforded by the operation will serve their purpose without their having to still use the glasses that would be required by those needing more accurate vision.

Risk of Operation.—I cannot believe that the removal of the clear lens from the myopic eye is so free from danger or promises such immunity from further degenerative change within the eye as some of its enthusiastic European advocates claim. The extraction of unripe cataract, and the extraction of cataract from highly myopic eyes are operations familiar to ophthalmic surgeons the world over. They have a record running back long before Beer's proposition was made in 1817, or systematically acted on by Fukala in 1887; and it is universally agreed that they are not without risk. The extraction of unripe cataract is not under any circumstances perfectly safe, and is probably attended with a little higher risk than the extraction of mature cataract. The prognosis for highly myopic eyes is never so good

as for eyes not myopic before they become cataractous. In the face of this general experience of the profession the claim that the removal of the clear lens is entirely without risk in cases of very high myopia seems like a pretty clear case of zeal outrunning judgment.

I have now a case at Wills' Hospital in which the lens was extracted for myopia nearly two months ago. The eye has been continuously irritated, or the seat of a low grade of irido-choroiditis, with development of additional vitreous opacities up to the present time; and vision is now but slightly better than it was before the extraction of the lens, and not nearly so good as correcting lenses gave before operation. It is not unlikely that this eye will still continue to improve until it gets useful vision; but evidently the risk of operation is not so slight a matter as some writers attempt to make it. Indeed, the statement that six or eight weeks are required for the treatment before the eye returns to its normal condition indicates strongly that such a course of protracted inflammation, attended perhaps, as in this case, by increased opacity of the vitreous, is not a rare occurrence.

Subsequent Decrease of Myopia.—Some of the reports speak of decrease in the degree of myopia occurring subsequently to the removal of the lens. A progressive decrease, which they are inclined to ascribe to some mysterious influence of the operation upon the nutrition of the eye-ball. Such a change of refraction is to be noted after the extraction of cataract or other extensive section of the cornea. It depends on post-operative changes in the curvature of the cornea, and return of the cornea to its normal position, as the corneal wound becomes consolidated and the eye-ball assumes its normal shape. Thus, in one of my recent cases of cataract-extraction the first trial with lenses two weeks after the operation, showed the refraction to be corrected by:

+3.50. sph. +11. cyl., ax. 30°. V.=5-15.

One month later the same required:

+10. sph. +6. cyl., ax. 25°. V.=5.10 partly.

Such an increase of hyperopia is the almost universal rule after cataract-extraction, and the change may go on for many months. Its equivalent, the diminution of myopia

when the eye is highly myopic before the lens was removed, is only what would naturally be expected from any operation involving a considerable section of the cornea; and while it is not impossible that the removal of the lens may improve the nutrition of the highly myopic eye-ball, such observations do not at all prove it.

Conclusions.—It is likely that the operation of removal of the crystalline lens for high myopia, has a proper place and will sometimes prove of decided service. It is almost certain, that, like other operations, it will make the best statistical showing when performed in cases that could be better treated by less severe methods; and that when confined to the cases that are not amenable to correction by lenses, its field of usefulness will be small and the success to be achieved with it not very brilliant.

For the mass of cases of very high myopia the treatment will continue to consist in correcting lenses, particular supervision of the amount and conditions of near work, and the use of appropriate remedies for the diseased conditions of the posterior coats of the eye that complicate high myopia and favor its increase. For a few cases, Fukala's operation is a positive addition to our therapeutic resources.

The great thing to do for very high myopia is to prevent its development by the proper management of myopia of lower degrees.

Current Literature

REPORT ON NEUROLOGY AND PSYCHIATRY.

BY A. FERREE WITMER, M.D.

I. Prognosis and Duration of Attacks of Mental Disease.—(*Boston Med. and Surg. Jour.*, June 10, 1897).

As Dr. Stedman writes: "In no other department of medicine is prognosis more obscure." All suggestions that throw light upon this subject are therefore of great value. The factors that the author considers important are:

(1) Hereditary. These cases Dr. Stedman finds are the most curable, but also the most likely to relapse.

(2) Time of life. The young, particularly females, are more likely to recover than

those of mature or old age, not less than 63 per cent. of the recoveries from insanity take place before the age of twenty. The menopause not infrequently determines the duration of the insane outbreak, but, as Dr. Stedman points out, insanity referable to the menstrual function is exceedingly rare. Insanity occurring in old age should not, however, be considered hopeless, for even here complete cures from acute melancholia are occasionally recorded.

(3) **Physique.** Good physical condition immediately preceding the outbreak of insanity is less favorable than is commonly supposed. Mild cases of insanity of long duration are frequently noticed in those in whom the physical health is but little disturbed. Improved physical condition keeping pace with mental improvement is a favorable sign.

(4) **Mentality.** Natural mental capacity is a determining factor in prognosis. Those, if we might be pardoned the seeming paradox, of good common sense, usually recover the most quickly.

(5) **Form.** The character of the insanity is also a factor. Acute melancholia is the most common form of insanity, and also the most curable (97 per cent. in the New York City Asylum—Witmer). Suicidal tendency is very common in acute melancholia. Paralytic dementia is necessarily fatal.

(6) **Cause.** The cause or manner of onset must be considered. Sudden shock to the system is less serious than slow drain of mental activities due to worry, etc.

(7) **Treatment.** This factor is unfortunately often overlooked. Rarely is it possible to give treatment at home at all comparable to that obtainable in the well-conducted asylum.

(8) **Other Factors.** Under this heading it must be remembered that hallucinations of hearing, coining of new words, mimicry, incoherence, persistent delusions, odd attitudes and persistent refusal of food are all unfavorable symptoms and point to the condition of chronicity.

Finally the author makes a plea for the extension of the time of the acute forms of insanity. Ten years, and not six months only—as is the practice commonly in the asylum—should elapse before the patient is considered chronic and consequently incurable.

II. A Case of Circumscribed Unilateral and Elective Sensory Paralysis.—(*Journal*

of Experimental Medicine, Vol. 1). The writer, Dr. Barker, of Baltimore, noticed deficient cutaneous sensibility over the area of distribution of the median and brachial nerves of his left arm. Sensation for warmth, cold, pressure and touch were absent together with a slight diminution in the number of pain spots. He concluded that the condition was due to the pressure of a cervical rib upon the posterior fibers of the brachial plexus.

III. Some Studies in Heredity.—(*Journal of Psycho-Asthenics*, for September, 1896). After quoting statistics indicating the transmission of mental defects, Dr. Martin W. Barr states that in his own experience, based upon the study of one thousand and forty-four idiots, he finds thirty-eight per cent. with a history of hereditary insanity or imbecility, and fifty-seven per cent. of other neuroses. The following table, quoted by the author, shows the sequence of liability in inheritance.

Mother insane	1	Daughter resembling mother.
" "	2	Son resembling mother.
" "	3	Daughter resembling father.
" "	4	Son resembling father.
Father insane	1	Son resembling father.
" "	2	Daughter resembling father.
" "	3	Daughter resembling mother.
" "	4	Son resembling mother.

IV. A Graphic Study of Tremor.—(*Journal of Experimental Medicine*, Vol. II). In an exceedingly interesting paper Dr. A. A. Eshner reports his findings in more than 1,100 observations in one hundred different persons as follows:

(1) All muscular movements are made up of a series of elementary contractions and relaxations in alternation, which may be appreciable as tremor in conditions of both health and disease.

(2) The differences between different tremors are of degree rather than of kind, *i. e.*, no one form of tremor is distinctive of any one disease or group of diseases.

(3) No definite relation exists between one form of tremor and any other.

(4) The frequency of movement is in inverse ratio to the amplitude and *vice versa*.

(5) Habitual movements are performed with greater freedom from tremor than unusual movements.

(6) There is no material difference between the movement of the two sides of the body, except as related to proposition No. 5.

THE PHILADELPHIA POLYCLINIC

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PHILADELPHIA, JULY 17, 1897

OF THE MAD DOG.

WE have before us a medical work nearly two hundred years old. It bears on its title-page the date 1608, but this is merely one of those typographical errors which are so common in old books. The proper date is doubtless a century later.

The book, by Richard Mead, M.D., F.R.S., Physician to St. Thomas' Hospital, is entitled, "*A Mechanical Account of Poisons in Several Essays.*" The word poisons is employed in a broad sense. Articles on the bites of venomous animals and on mephitic exhalations are included. A prominent essay is the one with the title of this editorial.

The culmination of the annual reign of the dog-star being near, it is opportune to discuss a disease that has been for many centuries connected with the canine race and which has exercised a terror over most human beings that is scarcely equalled by any other affection. In the quaint paragraphs of Dr. Mead's article, we observe much erudition and some superstition; the ancients are largely quoted, but it does not appear that the doctor himself had ever seen a case of the disease he writes of.

A belief in the existence of a specific virus

in the saliva of dogs (and some wild animals) under certain diseased states, more especially in the warmer season, has existed from a very early period. Aristotle described it and it has been accepted with but little objection as a form of disease from his time until the present. This does not prove its reality, for the existence of witchcraft was unhesitatingly accepted by learned men and women for many centuries, and is still implicitly believed in by many ignorant persons. Our fellow-townsmen, Dr. Dulles, has for many years subjected the literature of the subject to intelligent critical review and has shown that many of the reports of rabies (this term is preferable to hydrophobia) are untrustworthy. We would like to be able to go further than this and believe that the disease is non-existent, but the data at hand do not seem to justify such an extreme statement. Much of the literature on the subject is misleading, being tinctured with superstition or inaccurate observation. In many cases of death with violent nervous symptoms, a diagnosis of rabies has been made for want of any other assignable cause, although the dog-bite may have occurred many years before.

One of the most recent scientific investigations of rabies is to be found in the last report (1895-6) of the United States Bureau of Animal Industry. The article is by Drs. V. A. Moore and P. A. Fish, and concerns especially manifestations of rabies in Washington, D. C. The authors argue strongly for the belief in the specific nature of the disease, but admit that the accuracy of a diagnosis from symptoms in the human being is often doubtful. It appears that the proper demonstration is only to be obtained by inoculating rabbits and waiting from two to four weeks for the appearance of characteristic symptoms. It is to be noted that ordinarily the symptoms in rabbits are not of "madness" but of paralysis. It will be unnecessary to enter upon a discussion of

the pathology or laboratory diagnosis. We discuss the general question here merely to offer some advice to those who may come in contact with cases of real or supposed rabies. It is highly important that all data should be carefully collected and recorded. The suspected animal will generally be promptly killed and if the body is to be made the subject of test, every care should be taken to prevent decomposition, for when that has occurred the inoculation will only result in septic infection.

The Baltimore cases have attracted much attention. Eight boys were bitten by the same dog and were promptly treated at the Pasteur Institute in New York. Four died of rabies in a few weeks. The Institute, in its *Bulletin*, claims that fatal cases should not be counted if death occurs *earlier* than fifteen days after the treatment is first instituted, which is a rather curious principle.

In a recent article Dr. Dulles condemns the practice of administering narcotics in these cases and advances the view that some of the Baltimore boys died of "laboratory rabies."

H. L.

In the Clinics

Under the Editorial Charge of DR. OAKLEY W. HERMANCE.

Follicular tonsillitis is an acute infectious disease and should be treated as such. Whilst systemic treatment is of paramount importance, local treatment should not be neglected. According to Dr. Gibb each crypt should be carefully cleansed with a strong solution of hydrogen dioxid, after which applications are to be made to each with a solution of silver nitrate, 40 or 60 grains to the fluidounce. Involvement of the pharyngeal or the lingual tonsil should receive similar treatment.

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DR. YOUNG showed recently a perfect cure in a case of *elbow-joint disease*, of tubercular origin. The joint was injected with iodoform emulsion under strict aseptic conditions.

The joint was immobilized in a plaster cast with constitutional tonics. The joint motion is perfect, and the result most gratifying. In the hip joint these injections do not appear to be as satisfactory as in the smaller joints, since they appear to act as foreign bodies and have to be evacuated.

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DR. G. HUDSON MAKUEN reports a case of *stammering*, which seems to be of unusual interest. A young woman, 36 years of age, came to the clinic four months ago with a history of having suffered from various nervous affections which were supposed to be of pelvic origin. Ovariectomy had been performed for the relief of this condition. At the age of 6 years she had a severe attack of scarlet fever, and from that time she had been an inveterate stammerer of the most pronounced type. When she came to the clinic it was with the greatest difficulty that she could express herself at all. She had sought relief at various institutions and from many "stutter doctors," but with no success whatever. A careful examination of her case revealed the fact that her trouble was due to a faulty use of the respiratory mechanism during the act of speaking. She made no use whatever of the diaphragm in the production of speech, and the result was a lack of promptitude in the emission of tone, or voice, which is the material of which speech is made. She tried to articulate that which did not exist, namely voice, and there was a resultant spasm in certain muscles of the articulatory mechanism. Three visits sufficed to teach her the respiratory action necessary to produce the voice in the proper manner and at the proper time, and she has not stammered since, although she has been put to some severe tests. She has also developed from a weak and despondent creature to an apparently strong and healthy woman. She has gained ten pounds in weight and increased her respiratory capacity in a very marked degree.

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FLUID EXTRACTS AS A SOURCE OF TINCTURES AND OTHER GALENICALS.

BY CHARLES RICE, Ph.D., New York.

HAVING been invited by the editor of this journal to present my views regarding the propriety, or otherwise, of the use of fluid extracts in the preparation of tinctures, wines, etc., of the corresponding drugs, I offer the following brief statement:

It is the duty of the pharmacist to furnish to the physician all medicines prescribed by the latter in the condition in which they are expected by him to be, in order to produce the desired results. It is, therefore, incumbent upon the pharmacist to exclude all known factors of uncertainty by scrupulously following authoritative directions, if such are available. Even when this is done, there remain, in the case of most vegetable drugs, enough sources of variation, due to causes over which the pharmacist has, usually, no control. Let us take an example, say, *strophanthus*. Every physician who uses this drug, is familiar with the *tincture* prepared from it, and knows just what amount of it he must prescribe (if it is of proper strength) to produce a certain effect. If the official directions given by the Pharmacopœia for its preparation are carefully observed, the product, no matter by whom prepared, will be reasonably uniform in strength, though it will not always be so actually, since there are several kinds of *strophanthus* seed in the market, which contain different amounts of the active principle, and are not always readily distinguishable from each other, and further, since the percentage of active principle is

liable to vary even in seeds derived from the same species. If now a pharmacist, in view of all these sources of variation (over some or all of which he has no control, or which he does not know how to control) were to resort to a method of preparation which is liable to introduce further uncertainties, such as to dilute a fluid extract of *strophanthus* not made by himself,—and regarding the exact strength of which he has nothing but the assertion of the manufacturer—and thus to produce a “tincture of *strophanthus*,” he would commit a serious blunder. The product may, by chance, be of the expected strength, but most likely it will vary more or less, and rather more than less, from the one prepared by the official process.

The reasons of this variation, when a fluid extract is used as the starting point for a tincture or other galenical preparation, are various. The most common reason is this: In a fluid extract, a state of saturation is so nearly reached, that the addition of a diluent usually disturbs the equilibrium, and causes more or less separation and eventual precipitation of some constituents. Even when such separated matters are, at first, of that kind which are inert, they are liable, during the process of precipitation to carry along with them some of the useful and active constituents, and thus to render the preparation weaker. Even if the diluent of a fluid extract be so selected that it is identical with the menstruum with which the fluid extract

was prepared, there will, in most cases, occur some precipitation upon standing. And as it is practically impossible to ascertain the exact composition of the menstruum of a fluid extract bought in the market, without consuming a large volume of the fluid extract itself, the person who uses a diluent will generally happen to use one of a more or less different composition, and thus hasten the partial decomposition of the preparation.

From all this it follows, that the preparation of tinctures, wines, and other galenicals from fluid extracts should not be *officially* countenanced and should be generally discouraged.

It should, however, be added that, if a

pharmacist possesses the requisite knowledge and skill, to ascertain and control the strength of a fluid extract and of any galenical preparation derived from it by dilution, and if he assumes the responsibility of the identity of the latter with that made by the official processes, he is not liable to censure. No matter how he reaches the result: as long as this is the one expected, he is justified in using any method which leads to it. But since the ability of thus obtaining correct results by methods not sanctioned by the pharmacopeia is not possessed by all, no official permission should be granted to deviate from the official standard.

THE HOME STUDY OF OPHTHALMOLOGY. VI.—HOW TO USE THE OPHTHALMOSCOPE.

BY EDWARD JACKSON, A.M., M.D.

Professor of Diseases of the Eye in the Philadelphia Polyclinic; Surgeon to Wills' Eye Hospital, Philadelphia.

"FIVE-SIXTHS of the art of ophthalmoscopy are contained in a knowledge of the normal eye, the rest is a series of representations which can be read almost at sight." Thus wrote the late E. G. Loring, whose name is so closely connected with the perfecting of the ophthalmoscope and ophthalmoscopy. It would be well if the words were stamped on the box of every ophthalmoscope sold. No reiteration of them can too strongly impress their idea upon the mind of the student. The writer's personal experience is, that the use of the instrument may be learned by mastering its theory from books; and persistently working with it, without a single lesson from any teacher. Hence, it is possible by home study alone, without the opportunities of a large eye clinic, to get a good practical acquaintance with the art of ophthalmoscopy.

It is absolutely essential, either to learn the use of the instrument, or to use it satisfactorily afterward, that the surgeon should be in the proper position with reference to

the patient. He must sit *alongside of the patient, not in front of him*. This applies especially to the direct method of examination, to which alone reference is made throughout this article, because it is the method now almost universally used in making ophthalmoscopic examinations in this country, and the method that gives information of the greatest value both as to diseases of the eye, and as to the eye symptoms of general diseases. Sitting in front of the patient, the surgeon has to lean forward, and take a constrained position. But seated fairly alongside, facing in the opposite direction, the patient with his back to the light, the surgeon with his face to the light, no such strained position is necessary. When properly seated thus, it is easy, by inclining the patient's head a little toward him and inclining his own head a little toward the patient, for the surgeon to bring his right eye to the patient's right eye, or, from the other side, his left eye to the patient's left.

To practice the direct method easily and

satisfactorily, the surgeon's eye should be brought as close as possible to the patient's, usually within one inch, and in the proper position. This is easy to accomplish, without any constrained attitude and without the surgeon's face being brought in front of the patient. The light must be so placed that when the eyes are in position for the examination, it will be steadily and easily reflected from the ophthalmoscope mirror into the patient's eye. If it be too directly behind the patient, the patient's head cuts off the light from the mirror; if it be too far to the side, the surgeon's nose does the same thing, and the mirror has to be inclined more than would otherwise be necessary. A good way is to place the light fifteen or twenty inches behind the patient, and far enough to the side to allow it to fall on the outer third of the eyelashes.

With the light and patient in proper position, the surgeon leans back, withdrawing several inches or a foot from the eye of the patient, holds the ophthalmoscope to his own eye which he is going to use (the right for the patient's right, the left for the patient's left), tilts the mirror so that it faces towards his own nose; and, looking through the sight-hole, twists the handle of the instrument until the light reflected from the mirror falls on the patient's eye. When this is done, the patient's pupil becomes lighted up with a bright red glare.

This should be carefully observed from the distance mentioned to ascertain if opacities are present. Then the surgeon leans forward, bringing his eye with the ophthalmoscope to it, closer and closer to the patient's eye until he reaches the proper distance (one inch) for the direct method.

In first attempts, it is almost certain to happen that, while approaching the patient's eye, the ophthalmoscope gets turned, so that the light is reflected somewhere else. When this happens, it is best to draw back far

enough to see just where the light is falling, and then to turn the ophthalmoscope so as to throw it on the eye again, when another attempt may be made to get close to the eye to be looked at.

Ease in using the ophthalmoscope consists largely in skill to keep the light steadily directed on the eye looked at; a skill that can be acquired in no other way than by practice. Of course, this practice may be had with any patient, or with an office boy, or where no human eye is available, with the artificial eye. Or one may simply set a card with some fine print on it to be looked at through the strongest convex lens available, and practice keeping the light directed to a particular part of it. When the ability to keep the light on the patient's eye has been acquired, there need be no question but that the surgeon can see the fundus in most of eyes he looks at.

With the living patient, there is more difficulty than with the artificial eye, because, as the ophthalmoscope and surgeon come near, the patient will often shrink back, even when not intending to do so. As a means of keeping the patient from getting away from the proper position, it is well to have him sit on rather a low chair with a very straight back. It should also be a narrow chair, so that there is no chance to move sidewise from the surgeon, compelling him to lean over in a strained position. Of course, the chair-back must not be high enough to come in front of the source of light.

The source of light may be any broad flame, the broader and more uniform the better. The advantage of the Argand flame or the Welsbach mantle, is the comparative uniformity of its brightness in different parts. One can make ophthalmoscopic examinations by daylight. If the pupil be well dilated, simply placing the patient's back to a window will do; or, if the pupil be not dilated, a darkened room with a small hole in the

shutter, or crack between the shutters, will answer. The reason why daylight is not more used, is, that it gives totally different color effects from artificial light; and because artificial light is always obtainable, and is more convenient when the room has to be darkened to dilate the active pupil, and therefore must be used part of the time. The student should, however, try ophthalmoscopic examinations by daylight, and become somewhat familiar with the special characters of the image so obtained.

The ophthalmoscope is used with only one eye at a time. It is often asked, should the other eye be kept open? The answer is, keep it closed if you must, but open as soon as you can. If one is not accustomed to working with a single eye, while both are open, as with the microscope, he will at first find what he sees with the eye not in use, confusing, and a great hindrance to seeing with the eye that is looking through the sight-hole of the ophthalmoscope. But by practice most persons can learn to keep the unused eye open, and yet completely disregard the visual impressions made upon it. When the ability to do this can be acquired, it is the best thing to do; because there is less strain and effort needed than where the eye behind the ophthalmoscope is kept open and the other closed.

In using the ophthalmoscope on the living eye, one must bear in mind the matter of fatigue to the patient. Of course, prolonged use of the ophthalmoscope may be fatiguing

to the surgeon. But steadiness is just as necessary on the part of the patient, who, being less accustomed to the procedure, feels the fatigue sooner. Everything should be adjusted in the proper position, before the patient is asked to fix the eyes. Even the inspection as to opacities of the dioptric media should be made a part of this preparation. Then, when the surgeon is ready to look at the fundus of the eye, the patient is to be told to fix his eyes on some point, not directly in front but rather towards the side of the eye that is to be examined. This allows the surgeon to look directly into the eye without getting in front of the face. If the patient, however, turns the eyes rather in the opposite direction, away from him, the surgeon has to lean over to get a corresponding position in front of the patient.

After some attempt has been made to see into the patient's eye, and his eyes are becoming tired or unsteady, beginning to wander about, or other signs of restlessness are manifested, it is better to suspend the effort, to lean back and let the patient rest. If persisted in, the attempt will certainly result in failure. The patient's eye will become more and more unsteady, and his condition less favorable for subsequent success. But after a moment's rest, the patient may be asked to fix in the proper direction again, and the attempt renewed. In this way, the new patient may, often in a few minutes, be taught to hold the eye quite steady, and a satisfactory ophthalmoscopic examination effected.

GOUT AS A CAUSE OF EAR DISEASES.

BY CHARLES BAUM, M.D., Philadelphia.

In text-books, reference is seldom made to ear troubles occurring in gout. The same toxic cause which produces the well-known ordinary symptoms of gout, does produce otalgia. Gouty otalgia does not differ in its symptoms from ordinary earache, except that

the intensity of pain is most severe during the "small hours" of the night, and that it is most rapidly relieved by appropriate constitutional treatment.

Tinnitus aurium, of gouty origin, is slowly increasing in frequency. In such cases, as a

rule, the acuteness of hearing is not affected; vertigo is frequently absent; pressure sensations from within upon the external tympanum are common, especially during a paroxysm of gout in the classical locality; posture of body does not influence the intensity of the sound to any great extent, but the degree of saturation of the blood by the

gouty poison increases or diminishes it. The character of sound varies as in ordinary tinnitus aurium. During the night, the sound is most marked. Long-continued and local treatment has been of no avail. Proper constitutional treatment will greatly relieve or almost remove the tinnitus aurium. It is doubtful if a complete cure can be obtained.

Society Proceedings

NEW YORK ACADEMY OF MEDICINE.

Section in Orthopedic Surgery.

Meeting of May 21, 1897.

DISLOCATION OF THE PERONEOUS LONGUS AND PERONEUS BREVIS.

DR. W. R. TOWNSEND presented a young man of 20 years of age whose peroneal tendons were easily dislocated to the front of the malleolus. The right foot had been affected in this way for many years, the left only for the past seven months. On walking and on rising from a chair, the tendons would slip over the malleolus and cause considerable disability till they were replaced by the hand. The boy did not have much pain, but he was easily fatigued. Dr. Townsend had hastily reviewed the literature of the subject. Dr. L. A. Sayre reported a case in 1870. In 1876 Dr. Beach, of Boston, reported eighteen cases, including one of his own. Gillet de Grandcourt reported ten cases in 1878. Treves said it was caused by sudden and violent contraction of the muscles when the limb is in such a position as to favor displacement and that it may be treated by pads and pressure and that, in some cases, it was advisable to replace the tendons and retain them by suturing the torn edges of the sheath.

DR. R. WHITMAN suggested deepening the channel, replacing the tendons in the groove in the bone and giving them a new covering of periosteum or fibrous tissue. This might be possible without removing the sheath.

DR. A. B. JUDSON said that the peronei were comparatively small and unimportant muscles. To a slight degree they assisted the muscles of the calf to extend the foot on the leg. Aside from this their function was to evert the sole of the foot and this function

was not seriously impaired by displacement of the tendons to the front of malleolus. He thought that the patient would get no benefit from an operation and that practically no treatment was needed.

DR. WHITMAN said that the discomfort caused by the slipping of the tendons must be considerable and that the boy would be better off if this could be stopped.

DR. TOWNSEND said that the patient had recognized the disability and had come on account of it and he did not think it was fair to tell him that we could do nothing for him without trying. He thought an attempt should be made to prevent the slipping of the tendons by the application of pads and pressure before an operation was decided on.

A CASE OF TRAUMATIC SPINE WITH RECTAL AND VESICAL PARALYSIS.

DR. J. P. FISKE presented a patient, a man 33 years of age, who had been under treatment for fourteen months, and under observation thirty-four months, from the time of the injury. When first seen he was in a condition of complete helplessness. He could not move in bed and if turned or moved by his attendants he suffered the greatest pain. Urine was constantly flowing and he was not conscious of the passage of feces. Recovery had been complete with control of the sphincters. He was now walking without assistance and had returned to his work. The accident had been attended with great violence. While working as a harness-maker, the boards gave way under him, as he was carrying a heavy load, and his right leg went

through a hole in the floor. The spine was forcibly flexed and he became unconscious. The twentieth day after the injury rigidity of the spine and muscular spasm were marked. There were complete paralysis from the waist down as regards voluntary motion, incontinence of urine and feces, and pain in the dorso-lumbar region, aggravated by the slightest motion. Crepitus and spinal deformity were absent. The diagnosis was severe traumatism of the spine, concussion of the cord, more or less complete rupture of the ligaments, and possibly partial dislocation of one of the lumbar vertebræ with spontaneous reduction. He was at once encased in plaster of Paris from the axillæ down to and including the pelvis, with immediate considerable relief. The plaster jacket was renewed when necessary and was worn day and night for ten months. This treatment, with massage, frequent change of position, alcohol baths, and such medication as was required by his poor general condition and the vesical symptoms, was attended by gradual recovery. There were no bed-sores. At the end of four months he sat up in bed and was lifted into a steamer chair. In seven months he had regained control of his rectum and could walk a short distance with crutches. From this time his recovery was more rapid. The incontinence of urine persisted longer than the other symptoms, but ceased after a time and for the past twelve months he had been a perfectly well man. This case showed clearly the immediate and permanent relief which followed absolute fixation after severe spinal injury. Patients treated without persistent fixation were liable to be constantly troubled with pain in the back and legs and to present the symptoms of railway spine. Dr. Fiske added that these cases were often considered hopeless. He had presented the patient as an example of what continued fixation and supporting treatment would accomplish.

AN ISCHIATIC CRUTCH USED IN PLACE OF AN
ARTIFICIAL LIMB.

DR. A. B. JUDSON presented a boy, 9 years of age, who was wearing an ischiatic crutch, instead of axillary crutches or an artificial limb. Amputation had been performed below the knee after a railroad accident. The case illustrated the comfort and ability

which this apparatus was able to secure in the treatment of those affections of the lower extremity which require that the weight of the body be removed from the affected limb. This use of the skeleton of the pelvis was not a new thing. Ischiatic support was a feature of Dr. Fayette Taylor's hip-splint described in 1867. In fact the long hip-splint was an ischiatic crutch with the added function of traction. In the instrument shown the crutch consisted of an upright steel piece adjustable in length, to meet the growth of the patient, with an India rubber crutch-tip at the foot and a semi-circular pelvic band, carrying a single perineal strap. It also had a shoulder strap which transferred the weight of the splint to the opposite shoulder, a steel knee piece, restraining the limb antero posteriorly and a webbing strap above the knee. There was no customary leather strap surrounding the splint and the ankle because the lower part of the leg was absent. Although the stump was flexed in walking there was no possibility of ankylosis interfering with the subsequent use of an artificial leg because the knee was free from inflammation, which necessarily preceded ankylosis. The apparatus was easily provided with a joint at the level of the knee, and this was desirable in convalescent hip disease, if the limb was so long as to be inconvenient if constantly extended.

Aconite Poisoning.—R. W. GREENLEAF (*Boston Medical and Surgical Journal*, July 15, 1897) reports an interesting case of poisoning in a man aged 52 years, who swallowed between two and three drams of tincture of aconite root in mistake for tincture of rhubarb. The author relates the successful treatment, summarizes recorded cases and concludes that the following plan of treatment should be used: Empty the stomach with the stomach tube and wash thoroughly. In default of tube, zinc sulfate or apomorphine should be given. Antidotes should be given hypodermically. Of these the best are digitalis, atropin sulfate, strychnin sulfate, alcohol, ammonia. By inhalation, amyl nitrite; by enema, hot alcohol, may be useful. Galvanism may be used to stimulate respiration and cardiac action. The patient should be kept warm, due caution against burns being observed.

THE PHILADELPHIA POLYCLINIC

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PHILADELPHIA, JULY 24, 1897

DENVER AND THE AMERICAN MEDICAL ASSOCIATION.

THE meetings of the American Medical Association have grown to be large gatherings; and the number of places at which a successful meeting can be held has, therefore, correspondingly diminished. Within the last ten years, meetings have been held in Newport, Nashville and Atlanta, which are remembered by those who attended them as both enjoyable and scientifically successful. Yet there was some feeling that the accommodations were rather crowded, and the grumblers found plausible pretexts for the indulgence of their disagreeable characteristic. Only the exceptional facilities of Newport for entertaining large numbers of visitors made the meeting in such a small city at all practicable.

Members who have not kept pace with the geography of the West and may fear difficulty in this respect at Denver, however, should look into the matter. They will find that Denver has a population greater than that of the three other cities mentioned, taken together, and proportionately better facilities for entertaining large gatherings, as it has demonstrated to such bodies as the

National Educational Association, and the Grand Army of the Republic.

Much of the satisfaction felt at the Philadelphia meeting was due to the close proximity of the General, Section and Committee Meetings, and the Registration Office, Exhibit Hall, etc. To secure the same advantage of location, the Denver Committee has an equally good opportunity, and is wisely using it. In this respect, it will have nothing to fear in comparison with this year's meeting. With this advantage of an ideal location, and the proper application of effort to other important points, it is pretty certain that the internal arrangements of the Denver meeting will be excellent. But the features which will make the occasion especially memorable will doubtless be the outside entertainments and excursions, the scenery and climate of Colorado, and the general character of the whole trip.

These need not, and will not in the least be permitted to interfere with the scientific work of the Association. So far as they attract numbers to the meeting they will help the scientific work of the meeting, and it must be admitted that they do attract many. The trip (one day from Chicago), which might appear as an obstacle, will perhaps be remembered as the pleasantest feature of all. Such a railroad ride may be tiresome in the extreme, when taken alone, with only the newsboy's literature to fall back upon for entertainment. But taken by groups or train-loads of medical men, meeting after months or years of separation, or meeting personally for the first time, although long known through medical literature, it is an opportunity to meet one's fellows to be remembered for a lifetime, as those who have traveled so to former meetings well know.

The meeting will give an opportunity for a practical course in climatology, such as the profession of this country greatly needs. It is simply impossible, without experiencing

them, to fully appreciate the characteristics of a climate differing radically from that in which one has always lived. Every year thousands of invalids are sent from their homes in the East, to the great plateau from which arise the different chains of the Rocky Mountains. Of these, many cannot be benefited by the transfer, and many more fail to receive the full benefit they might, on account of the ignorance of the physician as to the remedy he is prescribing. Every year there are tens of thousands who suffer and die in the East, to whom the change would mean new life and health.

The subject of climate is a vast one. Little of it can be mastered in a week's time; and yet many a thoughtful physician making the trip to Denver will find he has learned more about it in the week than he had been able to get from years of reading. Facts with which he previously felt himself acquainted will arrange themselves in new combinations, and be clothed with new significance. Ideas, before nebulous and uncertain, will become definite and assume practical importance. All practitioners recognize the difference between book-knowledge and clinical experience, as regards the branches of medicine that receive their daily attention. Yet in regard to climato-therapy, most of them rest content with the scanty book-knowledge obtained from interested and partial observers.

If the meeting of the American Medical Association could draw to Denver ten thousand physicians, and keep them there for ten days, the practical gain in their efficiency as physicians would outweigh the benefit of a year's medical literature. It is to be hoped that a respectable portion of the ten thousand will be so attracted; and that the effect upon them will be felt by their colleagues throughout the country.

To those who can spend a longer time away from practice, the opportunity will be

an exceptional one to enjoy the grand things of Colorado. The excursions in connection with the meeting will offer the pleasantest and most effective introduction to the whole region, and when these are over the visitor will be able to choose the best place in which to spend the remainder of his vacation; in recreation and building up health. If one must, he can there carry on literary work under conditions far more favorable than he could secure during the summer months in the dense, moisture-laden atmosphere of the Central and Eastern States. E. J.

Editorial Note

J. M. Da Costa, LL.D.—In conferring the honorary degree of Doctor of Laws and Letters upon Professor J. M. Da Costa, Harvard University has given expression to the universal sentiment of the physicians of America, that "this is the man whom [they] delight to honor." His work, his teaching, his example, his advice, have done so much to advance the art and science of medical practice, that no honor could be too great in acknowledgment.

In the Clinics

Under the Editorial Charge of DR. W. OAKLEY HERMANCE.

DR. CANTRELL, in speaking of diagnostic appearances of diseases, said that the crust of *impetigo contagiosa* was rather pathognomonic of the condition, and that it appeared as if stuck on to the part. The edges of all crusted lesions, except this condition, are attached, but in this affection the attachment is in the center, the edges being free.

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DR. GIBB teaches that in young children *adenoid vegetations* should be removed by curet under general anesthesia. The pharyngeal muscles contract vigorously as soon as the curet is passed back of the soft palate,

and this operates seriously against the thoroughness in removal of the mass. In general anesthesia these muscles are completely relaxed.

DR. YOUNG called attention to the cure of *flat-foot of the atonic variety*. The treatment consists in gymnastic exercises to develop the weaker muscles, and the use of an aluminum or steel plantor spring to support the arch during its restoration. That flat-foot can be cured by these means is an established fact, and in some cases it is possible to increase the arch of the foot, and improve the height and beauty of the instep.

Correspondence

FURTHER NOTE ON A CASE OF HYSTERIC CLONIC SPASM OF THE WRIST.

To the Editor of the Philadelphia Polyclinic.

DEAR SIR:—Since correcting the proof of my article on "Hysteric Clonic Spasm of the Wrist," POLYCLINIC, June 26, 1897, the patient whose case I then described has again called at the Clinic stating that the spasms had returned four weeks previously. During her visit the arm presented, for a few moments only, however, the familiar movements.

It is now an interesting and suggestive fact that a cause similar to that which originally inaugurated the spasm, was operative in bringing about the recrudescence, namely, a fright induced by a fire. About four weeks ago a small fire broke out a few doors from her dwelling, and the excitement attending the event sufficed to bring back the spasm. The movements are, however, very mild, and on her second visit, July 3, 1897, had almost entirely ceased.

Very truly yours,

DAVID RIESMAN, M.D.

PHILADELPHIA, July 5, 1897.

New Publications

EYE-STRAIN IN HEALTH AND DISEASE. With Special Reference to the Amelioration or Cure of Chronic Nervous Derangements without the Aid of Drugs. By Ambrose L. Ranney, A.M., M.D. With 38 woodcuts. 8vo, pp. viii-321. The F. A. Davis Co., Philadelphia. 1897.

This work includes the substance of monographs published by its author, from time to time during the past ten years, in medical journals. With his peculiar views, those especially interested in the subject are already somewhat familiar. The more complete elaboration of them, with the support of numerous cases, and their presentation in this neat and convenient form, is likely to secure for them a wider hearing.

Dr. Ranney holds that eye-strain tends to cause an excessive expenditure of nerve force, which is commonly made at the expense of some other organ, or is paid out of the "reserve" or "nerve-capital;" and that, if this lasts long enough, it is liable to cause "nervous bankruptcy." He thinks many constitutional diseases, which ultimately imperil the lives of their victims, are indirectly the result of a state of low nervous vitality, and that the so-called inherited predisposition to certain diseases is based, in many cases, upon some anomaly of the visual apparatus.

The ground covered by the work is well indicated by the headings of the various chapters, which are as follows: The Bearing of Eye-strain upon the Duration of Human Life; The Tests of Vision and Ocular Movements; Eye-strain as a Cause of Headache and Neuralgia; The Eye-treatment of St. Vitus's Dance (Chorea); Sleeplessness, Some Facts Relating to Its Cause and Cure. Eye-strain as a Cause of Chronic Gastric and Digestive Disturbances; The Eye-treatment of Epileptics; The Eye-treatment of Nervous Prostration and Insanity; The Surgical Treatment of Anomalies of the Ocular Muscles (Heterophoria); Eye strain as a Cause of Abnormal Eye conditions.

With the exception of the foot-notes, tables, etc., being in rather too fine type, the work of the publishers has been, in all respects, well done.

Without discussing here the correctness of the views that Dr. Ranney here puts forth,

it may be said that this book contains the best presentation of them, and of the evidence by which they are supported that has yet been published. E. J.

THE EYE AS AN AID IN GENERAL DIAGNOSIS.

A Hand book for the Use of Students and General Practitioners. By E. H. Linnell, M.D. The Edwards & Docker Co., Philadelphia. 1897.

No practitioner of medicine or surgery, whether his field of practice be wide or narrow, general or special, can afford to neglect any aid in general diagnosis. But it cannot be denied that a great many have sadly neglected the enormous aid furnished by the eye and its auxiliaries. One reason has been that the mass of practitioners of more than ten years' standing never received in their student days any complete course of instruction upon the physiology and pathology of the eye, and are too often content to dismiss the whole subject with the statement that they do not treat the diseases of the eye. Another reason has been that no good work upon this subject has come into the hands of practitioners not especially interested in ophthalmology. The excellent work of Knies on the "Relations of Diseases of the Eye to General Diseases," while valuable as a book of reference, is too voluminous and too costly to be very widely used.

The work before us, of about 250 pages (8vo by the size of paper, 12mo by the printed matter), is certainly one that meets a real and pressing though, perhaps, unconscious need of the profession. It is divided into two parts; the first dealing with the Eye Symptoms of Nervous and Constitutional Diseases, and the second, entitled Reflex Neuroses, but including also the Relations of Ocular Affections to Functional Nervous Diseases, and of Affections of Remote Organs to Ocular Diseases, the Toxic Disturbances of the Eye, and the Ocular Symptoms Attending Anesthesia.

The First Part ends with a chapter containing a tabulated statement of the eye-symptoms of nearly one hundred forms of general diseases, which will be found to be very convenient for rapid reference.

The book is well written. The selection of topics has been good, and they are treated in a direct practical way, with brevity and clear-

ness. It is illustrated with diagrams of the portions of the nervous system concerned with vision, and of perimetric measurements of the visual field. Except for the manifest inclination to furnish with the book the excess of blank paper, which has been above referred to, the publishers have admirably done their part.

The work is of especial interest, however, from another point of view. In reading it, the reviewer was struck with the quotation of a case from the "Eye, Ear, and Throat Journal." Not knowing any journal by just that title, he was led to look into the matter, and found that the journal meant was evidently one published under the name of the "Homeopathic Eye, Ear and Throat Journal," of which the author appears to be one of the collaborators. As nothing in the teachings of the work had suggested even the existence of the fantastic system of Hahnemann, or any lack in its writer's appreciation of the aids of anatomy, physiology, pathology, etc., we were led to look more closely into the matter, and found in the "List of authors and publications consulted in the preparation of this treatise," of 75 named, at least 70 that were recognized as of established authority among regular physicians; and nothing in the whole book, except the allusions to the journal referred to, indicating that it was not of most orthodox authorship. While the elision of the word "homeopathic" may represent a praiseworthy desire to put an end to the false distinction and false pretence of a "school" in medicine, we fear it is liable to be regarded as an attempt at concealment for the sake of obtaining a wide circulation for the book. However this may be, this book, judged on its merits, is a valuable addition to medical literature, and will repay careful study on the part of any practitioner of medicine, who is not already exceptionally well posted on the subject.

E. J.



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THE PHILADELPHIA POLYCLINIC

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THE TREATMENT OF SCURVY AND THE SCORBUTIC TENDENCY WITH PULQUE.

BY C. E. IDE, M.D., Buffalo, N. Y.

I WISH, in the following paper, to call attention to an efficient treatment and prophylactic for scurvy and the scorbutic condition which, I believe, is not generally known in this country. It is the employment of *pulque*, a Mexican drink, made from the juice of the *Agave Americana* (century plant).

Modern sanitation and the extended use of improved methods of preserving and canning fruits and meats, have eliminated many causes of disease, both predisposing and exciting. We now rarely encounter scorbutic disease, yet immigration and the settlement in the cities of many who should have remained in the open country, have brought about conditions which may produce scurvy or a tendency to it.

Not long since I had under my care, in this city, a man with well developed scurvy, and about a month ago a man came to me suffering from poor nutrition, spongy, bleeding gums and other symptoms of this disease. I can recall many patients reduced to a similar condition by subsisting all winter long, occasionally all the year, on pork, potatoes and corn meal, never indulging in fresh vegetables or fruit.

We know something of the predisposing and determining causes of scurvy, but as to the detailed etiology, opinions are not in agreement. We usually find that the subjects have been placed in bad hygienic conditions, or else have so ordered their life

and diet as to seriously damage their nutrition. We find this oftenest among sailors and in inmates of prisons, barracks, hospitals or in soldiers exhausted by fatigue. The first case I mentioned above was encountered in my service at the Almshouse hospital, the second was from his own home in a decent district of this city. Exclusive animal diet has been given as a cause; others give lack of vegetable food, excess of sodium chlorid, or absence of potassium salts; others say that it is owing to water which is no longer potable, as when it is stored for a long time at sea; others again give intense cold or excessive heat as causes. Almost all are united in the opinion that deficient food with bad hygienic surroundings or unhygienically ordered life is the principal cause of this disease or condition.

The physical and chemical alterations found in the blood in this disease are interesting. According to analysis of scorbutic blood, made by Gabarrot, the potassium salts are much diminished, and he concludes that the cause of scurvy is the absence of potassium salts from the blood. Chalvet found red blood-cells and mineral matter diminished in the blood. Becquerel found the iron much less than in normal blood. Fritz and Duchek found the iron somewhat less normal.

Hayem and Leven made microscopical examination of the blood of cases of scurvy in the epidemic of 1871 in order to report their

results to the Academy of Medicine of Paris. They found no alteration of the blood, while Laboulbene, in the same epidemic, in analyses made for the same purpose, found considerable increase of white blood-corpuscles. This may be the hyperleukocytosis of repair.

Baca, of Puebla, Mexico, asks if we shall suspect the existence of micro-organisms as a cause. He reports an epidemic which occurred among Mexican Indians in the penitentiary of Puebla in 1892-1893 in which large numbers were attacked—325, being 37.75 per cent. of all inmates. He gives as predisposing causes the following:—Poor alimentation, low muscular power, frugality, overwork, bad ventilation, poverty of dress, great proliferous power, and mental depression from homesickness, suggesting again that we shall yet find a micro-organism to be the specific cause.

It is not necessary to give the symptoms here. Baca found in all his cases general weakness, muscular pains, petechial spots, redness, fungosity and exuberance of the gums, etc. These were the typical symptoms observed in my cases.

The juice of the *Agave Americana* was first employed in the treatment of scurvy by Doctor Peres, of the United States Army. He claimed it to be superior to all other anti-scorbutic specifics.

Pulque is, according to Dr. Lobato, of Mexico, an acid wine, unrectified, produced by fermentation in *aguamiel*, the juice of the *maguey* or *Agave Americana*.

This liquor is a familiar drink among the Mexicans, and varies according to the region from which the plants are obtained. The best is that which comes from the points on the Mesa Central Railroad, as in the plains of Apam, Tlaxcala, and Puebla, for in this region the best *maguey* grows, producing the best *aguamiel*. That produced in the hotter southern portions is called *tlachique*, being

of inferior quality and cheaper, yet efficient in the treatment of scurvy.

The *aguamiel* (juice) is obtained by scraping the *maguey*. It is a yellowish-white liquor, slightly viscid, with an aromatic smell, due to an essential oil, and agreeably sweet taste. Not all varieties are equally rich in the fermentable ingredients, sugar and gum. *Aguamiel* easily ferments spontaneously after a few hours' exposure to air, at from 18° to 20° C., developing alcohol; if the fermentation be not checked, acetic acid, and later lactic acid, is formed; finally putrefactive changes occur. It is difficult to preserve *pulque* for a long time, except by aid of antiseptics.

In the light of one theory as to the cause of scurvy—diminution of potassium and sodium and iron salts, and perhaps also of the albumen contained in normal blood, the result of analysis of the salts of *pulque* is further interesting. Dr. Lobato found in the ash of 500 grammes of *aguamiel*, as follows: Calcium sulfate and phosphate and agavate, sodium agavate, carbonate and chlorid, magnesium chlorid, sesquioxid of iron, albumen and silicic acid. It is interesting to see how similar the constitution of *pulque* is to that of the blood, and it is reasonable to expect that by introducing into the blood those salts the lack of which causes the scorbutic condition, we shall restore the equilibrium of its organic constituents, so that osmosis and nutritional functions may be carried on normally.

Lobato claims for the *pulque* that it is a nourishing beverage, a tonic to the nervous system and general economy, regenerating the blood, and containing salts which can cure some complaints, and carbonic acid which determines many effects favorable to digestion.

Pulque can be administered almost *ad libitum*. Baca, in his epidemic, administered a dose of from 250 to 300 grammes daily, taken all at once between 11 o'clock and noon. In

all there were 325 cases, as mentioned above, and the epidemic was completely dispelled inside of thirty days, no new case arising after the end of a week from the beginning of the administration of *pulque* to all the inmates.

With regard to Baca's idea that scurvy is a specific, infectious disease, it may be said that from what we know at present, we are only justified in considering it a dyscrasia, characterized by malnutrition due to imperfect performance of their functions by the

cells of the body, resulting from insufficient or improper pabulum. We can place it in the same category as rickets, in fact many claim that infantile scurvy is a manifestation of rickets.

In *pulque*, then, we have a natural product that gives excellent results in the treatment of scurvy, and the importing of which into this country, or the manufacture of which in this country, would constitute a profitable industry.

INFECTION FOLLOWING CATARACT OPERATIONS.¹

BY S. D. RISLEY, M.D.

Professor of Diseases of the Eye, Philadelphia Polyclinic; Attending Surgeon to Wills' Eye Hospital, Philadelphia.

GENTLEMEN: I wish to call your attention to-day to two cases, now in the wards, which illustrate some of the accidents which may occur during the after-treatment of surgical cases:

CASE I.—You will recall this patient as one upon whom you witnessed the simple extraction of hard cataract a week ago. The operation was smooth and without accident, leaving a perfectly central round and black pupil, with no tendency to prolapse of the iris or gaping of the wound. She counted fingers readily. The eye now exhibits two interesting and important conditions. In the first place, you will observe that the pupil, now dilated with atropin, is almost as white as before the extraction. This must be due to the fact that the posterior cortex was still transparent at the time of the operation and remained in the eye, clinging to the capsule, and, being transparent, was not recognized. The anterior cortex was opaque, and the cataract appeared fully "ripe," as I took pains to demonstrate before the extraction.

This condition is always discouraging to the patient at first, since the retained cortex becomes opaque through the action of the aqueous humor, and excludes the light, so that, for a time, the eye remains blind. Usually, the lens-material is absorbed slowly and vision is restored, but the capsule in these cases is

likely to become gray, so that a capsulotomy is necessary.

But, unfortunately, a much more serious accident has occurred to this patient. The wound healed without reaction, so that, on the fourth day, the anterior chamber was fully restored and the eye almost white. On the fifth day, on opening the eye, there was an abnormal discharge on the dressing, the lids were puffy, the conjunctiva chemotic, and at the inner angle of the wound the cornea was gray from infiltration, and gray shreds of discharge were clinging to the wound. In a word, the wound had been infected. There has been no bacteriologic study, so that I am ignorant of the precise nature of the infection, but that the eye was in serious peril, two days ago, was not open to question. Bad as it appears to day, it is better than yesterday. The infiltration has not advanced, the discharge has diminished, and the conjunctival chemosis has largely subsided. The pain, which was at first severe, probably because of a threatened involvement of the iris and ciliary body, was promptly relieved by the abstraction of blood from the temple at the very outset of the trouble. The eye was flushed freely with a warm solution of corrosive sublimate 1 to 8000, and the infected area thoroughly cleansed by wiping the discharge away with a pledget of cotton saturated with a stronger solution, 1 to 1000,

¹ Clinical Remarks and Demonstrations at Wills' Eye Hospital.

after which the eye was again flushed with the boric-acid solution. The ulcer was then freely treated with a 1 per cent. solution of silver nitrate applied with a pledget of cotton on a probe, care being observed to preserve the surface of the clear cornea from its action. Finely powdered iodoform was dusted upon the surface of the ulcer, and into the lower *cul de sac* of the conjunctiva, and the lids closed. Iced compresses have been applied continuously night and day, and the above application made once in twelve hours. To-day it is obvious that the disease has been arrested. The frequent flushings with bichlorid solution will be continued, and the cold compresses applied one hour in three, and atropin instilled four times daily.²

CASE II.—This patient illustrates one of the most disappointing accidents which can befall both surgeon and patient. A few months ago I removed from the right eye a hard cataract by the operation of simple extraction. The operation was smooth, leaving a central round pupil. The recovery was fortunate in all respects, and when he received his correcting-glass, his vision was normal, viz., $\frac{5}{4}$ readily. He returned last week, complaining of his failing vision which had sunk to $\frac{1}{4}$, in consequence of delicate web-like bands in the pupil. This is a frequent occurrence after extraction of cataract, and, in most cases, is easily remedied by cutting across these bands with a delicate and very sharp knife. This operation you saw me perform a week ago to-day. There was no reaction, and, on the fifth day, the vision was once more $\frac{5}{4}$, and I signed his discharge from the house.

On the evening of that day, the eye became red and painful, and the following

² This patient was discharged from the hospital in four weeks with the eye white, and with but little remaining evidence of the serious peril through which the eye had passed, with instruction to return for capsulotomy two weeks later.

morning I found at the point where the knife had entered a small gray abscess deep in the substance of the cornea, the aqueous humor turbid, and the entire cornea steamy and faintly gray. The abscess was treated by the actual cautery, the eye was flushed freely with warm bichlorid solution, atropin instilled, blood taken from the temple, and continuous cold compresses applied, but the eye has passed into a condition of panophthalmitis, and is hopelessly lost. This is the second time only that I have witnessed this accident. A surprising clinical fact in this case is the length of time which intervened between the operation and the signs of infection of the wound. Indeed, the wound had completely healed, leaving no marked sign of its locality on the fifth day, so that I should like to feel convinced that there is no relation between the corneal infection and the operation.

You will recall the remarks I made to you at the time of the operation, regarding the necessity for aseptic precautions. These were most scrupulously observed in this case, so that the remote occurrence of the infection leads me to think that it must have taken place after the removal of the bandage, through an avenue left open at the site of the corneal puncture, by imperfectly replaced epithelial cells. In the first case of this kind which it was my misfortune to experience, the signs of infection were far advanced in twenty-four hours after the operation, and rapidly passed into panophthalmitis in spite of all the means adopted for its arrest. With these cases in mind, I must urge you to always regard the operation for secondary cataract as one by no means free from danger, and one which should always be performed with strictest attention to asepsis, both at the time of operation and in your after-treatment.

CARBOLIC ACID POISONING.

BY EDWIN A. HELLER, M.D.

Clinical Assistant in the Dermatologic Clinic, Philadelphia Polyclinic.

THE well known anti-pruritic and anesthetic properties of carbolic acid, first mentioned by Erasmus Wilson (*Journal of*

Cutaneous Medicine, June, 1870,) and J. H. Bill (*American Journal of the Medical Sciences*, Oct., 1870), have led to its use in the

treatment of immense numbers of affections of the skin, both for its antiseptic as well as for its anesthetic effect. That its free use, even externally, is attended by danger of poisoning is well known, but occasionally its use in comparatively small quantities also gives rise to the symptoms of poisoning, which may go on to a fatal termination, if not suitably treated. Its products, as salol, resorcin, etc., may give rise to the same symptoms and dangers.

As a rule, before the patient gives any subjective symptoms in cases not acute, the first symptom is a cloudy or smoky urine. Prompt administration of the antidote at this stage will usually prevent the appearance of other distressing and more dangerous manifestations.

After the ingestion of a large amount, the symptoms appear very rapidly, in one case (Taylor, *Philadelphia Medical Times*, Vol. ii, page 284.) unconsciousness appeared in ten seconds and death occurred in three minutes. As a rule, however, several minutes elapse before the symptoms manifest themselves.

The most frequent symptoms occurring in the order named are "nausea, cold sweats, stupor deepening rapidly into coma and collapse." (H. C. Wood, *Therapeutics*, pp. 618-620).

As a rule, death does not occur for some hours, and in some cases after an apparent great improvement sudden fatal syncope develops. (*British Medical Journal*, February, 1861).

Köhler (*Schmidt's Jahrbücher*, Bd. clv., p. 276) reports two cases of scabies, who applied externally about one-half ounce of carbolic acid in watery solution. One case was found dead. The other man stated that immediately after applying the solution he felt giddy. After seven or eight minutes his companion complained of a burning sensation, after which he became unconscious and

passed into a delirium ending in unquiet sleep.

Bauman and Hueter (*Medical Times and Gazette*, ii, 1878) found that during carbolic acid poisoning the sulfates disappear entirely from the urine, and that soluble sulfates freely administered convert the carbolic acid into a harmless sulfo-carbolic acid. Both sodium sulfate and magnesium sulfate have been used in experimental research (Cerna, *Philadelphia Med. Times*, ix, May, 1893) with entire success and according to H. C. Wood (*Therapeutics*, p. 621), it may be considered that a soluble sulfate is the proper antidote in all stages of poisoning by carbolic acid and should be employed freely and in large amount, as being capable of neutralizing the poison even after it has entered the circulation.

It is well known that in the upper intestinal tract salol is broken up by the pancreatic juice, into its original constituents, i.e. phenol and salicylic acid (H. C. Wood, *Therapeutics*, p. 641), and even externally its free use may give rise to phenol or carbolic acid poisoning, as is evidenced by the following cases:

CASE I.—J. W., colored, aged 36, laborer. His back was accidentally burned over a large area by the carelessness of a fellow-workman who spilled a bucketful of burning tar over him. The case progressed favorably, and in the course of two or three days a salol dressing was applied. In three hours the patient became cyanosed, unconscious, the urine cloudy, and all the symptoms of carbolic acid poisoning developed. Inhalations of oxygen and immediate removal of the salol effected a complete recovery in sixteen or eighteen hours.

CASE II.—B. C., aged 8, white, female, was ordered a rectal injection of carbolic acid (one-half fluidram to six fluidounces of water) for seat-worms. The nurse administering the injection, on her own responsibility prepared the remedy, and, ignorant of the fact that carbolic acid is insoluble in water, neglected to add glycerin to the mixture. The child

received the entire amount in the last injection given, and death resulted in from one to two hours after, with typical symptoms of carbolic acid poisoning, which, however, were supposed by the nurse to be only an attack of "colic," and medical aid was not summoned until too late.

CASE III.—B. D., aged 3, white, female, with scalds of both hands and forearms, was ordered to apply three times a day, an ointment made up as follows:

Carbolic acid, ...	5 grains.
Mercurous chlorid, ...	15 grains.
Zinc oxid ointment, ...	$\frac{1}{2}$ ounce.
	Mix.

In twenty-four hours smoky urine and cyanosis developed. Prompt administration of magnesium sulfate in large amount, caused a rapid clearing of the urine and disappearance of all symptoms.

These cases, coming under the observation of the writer within a comparatively short period of time, would tend to show that greater caution should be employed in the use of carbolic acid and its derivatives.

In cases where suspicion as to the susceptibility of the patient towards the drug exists, a valuable expedient will be to leave a written prescription with the patient for magnesium sulfate, with instructions to use freely and in large amount as soon as smoky urine or other untoward symptoms present themselves. It will be found that when externally applied in poisonous dose, carbolic acid or its derivatives cause, first, the cloudy or smoky urine, and immediate treatment at this stage is imperative, and its results always favorable.

In the Clinics

Under the Editorial Charge of DR. W. OAKLEY HERMANCE.

WHILE speaking of the complications of *varicella* Dr. Cantrell stated that gangrenous conditions often arose, both during and after an attack, and that these often took alarming proportions and so much so that great destruction of tissue might follow.

In a case of *cardiac irritability*, in a young man of nineteen, who used as many as ten cigarettes daily, Dr. Eshner prescribed:

Tincture of aconite	24 minims.
Spirit of nitrous ether	3 fluidounces.
	Mix.

Dose: A teaspoonful thrice daily.

Bicycle riding in moderation was allowed.

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DR. GEO. C. STOUT reports a case of *chronic mastoid abscess*, in which the "expectant" method of treatment had been carried to an unusual degree. A child of 5 years, who was brought to the Thursday ear clinic recently, had been under continuous treatment for three years past, first for an otitis media, later acute mastoiditis, and finally for chronic empyema of the mastoid. During this period the case had been treated at a number of reputable dispensaries as well as by a number of advertising "specialists" and others, but none of her caretakers had ever suggested an operation for the removal of the carious bone, or even the compromise of Wilde's incision.

This was in spite of the facts that there were three sinuses over the mastoid which were discharging a most foul-smelling pus, and that the same malodorous fluid was welling from the external auditory meatus. It is difficult to conjecture just what these expecters were expecting. Possibly septic meningitis—facial paralysis—or embolus of the sigmoid sinus. In any case the expecters were far more courageous than any operator need have been. Operation was suggested on sight, and done the following clinic day. A large sequestrum was lifted out after the first incision, the carious bone and granulations were thoroughly removed, leaving a free opening between the incision posterior to the auricle, and the external meatus via the middle ear.

The little patient has been rapidly gaining weight, strength and color, the odor has disappeared and the constant menace to her life has been removed.

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PHILADELPHIA, JULY 31, 1897

INSANITY AND PRISONS.

ELSEWHERE we reproduce from *The Medical News* a valuable contribution to the literature of penology, from the pen of our contributor, Dr. M. V. BALL, of Philadelphia.

In view of the recent judicial and legislative inquiries into the management of prisons in Pennsylvania, with special reference to the treatment of the insane, this article should be widely disseminated and carefully studied. Reading between the lines one beholds a conscientious physician striving to secure proper recognition of the unfortunate condition of the inmates of a prison and failing to make the slightest impression on a warden, unusually competent in many matters, not at all inhumane, but whose mind, so far as this subject is concerned, is encased in impenetrable armor. He appeals in vain to a board of inspectors, composed of cultivated, well-meaning, philanthropic, public-spirited gentlemen, likewise uninstructed, and not realizing their want of instruction. Back of this we see the antiquated, barbarian machinery of the law courts, administered by judges who, like the inspectors, are well-educated and humane gentlemen, thoroughly uninformed upon questions of

psychiatry. The judges condemn insane offenders to punishment as criminals, the physician recognizes their condition and upon reporting it is duly snubbed by the warden, who is upheld by the humane gentlemen that compose the board of inspectors.

Enters upon this state of affairs a judge whose attention has by accident been strongly directed towards the injustice of detaining the insane in prison, but who places the responsibility for their presence there, not where it belongs in the first place, upon the law and the courts, but upon those secondarily at fault, the prison officials. With obstinate resentment on the one hand, and passionate insistence on the other; with legal, penal, and asylum machinery utterly inadequate to the occasion, the stage setting is excellently adapted for the dramatic scenes that have been witnessed.

Dr. Ball points out the true remedy for the evils which Judge Gordon has exposed, but whose cause that eminent jurist has not yet clearly discerned. Insane offenders should not be sent to prison, but to a special institution for their kind. The few prisoners that become insane during confinement can readily be cared for in existing institutions. The law needs revision; and if the present agitation shall produce such revision it will have been most beneficial.

S. S. C.

Editorial Notes

Fluid Extracts not Tinctures.—The judicial and authoritative utterance with which our readers have been favored in the communication from Dr. Charles Rice, published in our issue of last week, fully confirms the position heretofore assumed by us and sustained almost unanimously by the contributors to our symposium, that it is practically impossible to prepare by dilution of a commercial fluid extract a preparation which shall correspond with an official tincture, wine, or in-

fusion; and that hence the druggist is not justified in dispensing preparations thus made without the explicit consent of the prescriber. The rare exception that Dr. Rice allows is evidently in the nature of a "saving clause," for while the conditions under which he admits this exception are theoretically conceivable, everyone admits that they are practically non-existent. Certainly no one who understands English or truth-telling will assert that the conditions of Dr. Rice are satisfied in the case of the druggist who purchases the commercial fluid extracts.

No doubt the defenders of existing abuses, and especially those commercially interested in the enlarged sale of fluid extracts, might, in disregard of English and truth, attempt to use Dr. Rice's exception to justify the rule which he condemns. If this should be done with the desire to satisfy their own consciences, we could have no objection worth offering for the consideration of consciences thus easily satisfied. If it should be done with the desire to influence the opinion of members of the pharmaceutical and medical professions, it would be useless to try to undeceive any physician or druggist so easily bamboozled. Hence we are content to let the matter rest just where Dr. Rice puts it.

S. S. C.

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Guaiac in Hematuria.—In the July issue of *The Medical Register* (vol. i, No. 3, 1897), the new and bright organ of the Faculty and Alumni of the Medical College of Virginia, Dr. H. H. LEVY calls attention to the value of tincture of guaiacum as a hemostatic in cases of hematuria of various origin. He credits the origination of the practice to Dr. J. N. UPSHUR. In one of the reported cases the remedy failed to control the bleeding. Calcium oxalate was found in the urine, hydrochloric acid and pepsin, with regulation of the diet, were resorted to, and in a few

days the bleeding ceased. In the other cases, which include instances of hematuria of undiscovered origin, of renal hematuria consecutive to gonorrhea and to scarlatina, one case of wound of the vesical mucosa from the stylet of a catheter, the bleeding seemed to be controlled by the drug. It is only fair to recall the fact that hematuria sometimes ceases spontaneously, with as little discoverable reason for the cessation as for the appearance of the symptom. Nevertheless it is well to have an additional agent to use in cases of bleeding from kidney or bladder, even if it be but an empirical remedy.

* *

The Plague and its Treatment with Antitoxin.—The *British Medical Journal* for February 6, 1897, p. 357, is authority for the statement that M. Yersin, the discoverer of the bacillus of the plague, has succeeded in obtaining from the horse a serum capable of conferring immunity in man. At Canton the Chinese were at first unwilling to be treated with the serum, but a student of the mission seminary, who was seized with the disease, was cured with three injections. Two other seminary students were shortly afterward cured in the same way. At Amoy, of twenty-three cases treated with the serum recovery ensued in twenty-one, as compared with an ordinary mortality of 80 per cent. M. Yersin maintains further, as a result of experiments on animals, that the serum will also prove valuable in affording protection to hose exposed to infection with the plague.

A. A. E.

News Item

THE MISSISSIPPI VALLEY MEDICAL ASSOCIATION will meet at Louisville, October 5-6-7-8, 1897. The railroads will make a round trip rate of one and a third fare, or probably one fare. The address on Surgery will be delivered by Dr. J. B. Murphy, Chicago; the address on Medicine by Dr. John V. Shoemaker, Philadelphia. Title of papers should be sent to Dr. H. W. Loeb, Secretary, St. Louis, Mo.

Selections

INSANITY FROM PRISON CONFINEMENT.

By M. V. BALL, M.D., Philadelphia, formerly Physician to the Eastern Penitentiary of Pennsylvania.

WITH the exception of a few South American prisons, solitary confinement is not in use in any prison in the world. Wherever the so-called cellular imprisonment is in vogue, the convict is not only permitted to see his relations, prison officials, officials of prison societies, etc., but he is allowed to read, to write letters, and to take exercise. In the Eastern Penitentiary of Pennsylvania, of which so much has recently been written and which is now under investigation, solitary confinement has not been practised for the last fifty years at least. And separate confinement has not been possible for the last twenty years (by separate confinement is meant the isolation of the prisoner from his fellow prisoners). Because of the limited number of cells two and even more prisoners have been obliged to occupy one cell, and only when a convict has been imprisoned for sodomy, or has showed symptoms of insanity, has he been placed in a cell by himself. Under such circumstances it is impossible to say that the system of solitary confinement produces insanity, since that method of correction is practically nowhere in use, but time and time again charges have been brought against the Eastern Penitentiary inspectors to the effect that their system is productive of more insanity than the so-called congregate system. What are the facts?

It is well known that the majority of the convicts that become insane in prisons are persons who have committed serious crimes, such as rape, incest, and manslaughter, crimes against the person rather than against property. For such crimes long sentences are usually received. Thus twenty-one insane and imbecile prisoners received into the Eastern Penitentiary during one year (June, 1894, to June, 1895) had an average sentence of three years and eight months, while the average sentence for the convicts generally was not more than two years and five months. Among these twenty-one convicts were several whose term of sentence ranged from five to fourteen years. Another, not included in this list, was serving out a life sentence. While, on an average, twenty seven per cent. of the general prison population is committed for crimes against the person, in this instance thirty-six per cent. of the insane persons were sentenced for this reason. It follows, therefore, that if insane convicts are not transferred to regular insane asylums the number in the prisons will constantly increase even if the annual commitment remains the same.

I contend that most of the cases of insanity found in prisons are not the result of confinement but rather the cause of imprisonment; that the insanity is largely responsible for the criminal actions of the particular individuals, and that the judges of the courts have either not recognized the unsound mentality or, recognizing it, have refused to take it into account. One judge, sitting in Philadelphia, gave it as his opinion that because a prisoner was insane "there was all the more reason for hanging him."

The managers of the Eastern Penitentiary have

hitherto paid little if any heed to the insane convicts committed to their care. The warden, a man brought up and schooled by Richard Vaux, whose contempt for science and modern ideas was well-known, is inclined to consider a person "inherently depraved" who is not amenable to ordinary reason. In his table of causes of crime, which was compiled by Vaux, we find that of the 22 men spoken of above, the warden has set down the insanity of 3 as due to inherent depravity, 2 to physical disease, 2 to moral weakness, 2 to family influences, 4 to faulty administration of the law, 4 to evil association, and 3 to idleness. For instance, in the case of an Italian who was undoubtedly insane upon admission, and who was sentenced for assault and attempt to commit rape, the warden considered his crime as having been due to "too much license and no repressive means to control self-will in the young!" Another man who was sentenced to fourteen years for committing rape, and who had attempted suicide in the county jail, and showed symptoms of acute dementia shortly after his reception, the warden considered "weak in moral power!" A third man, who was insane when admitted, and who had committed a murder and received a life sentence, as there was doubt as to his mental condition, the warden thinks committed the crime because of "laxity in the administration of the law!"

A man who commits a crime may be sane or insane; if insane, he cannot legally be tried for crime; he is not responsible, and therefore not culpable. If, unfortunately, his insanity is discovered only after his trial, as very often happens, then he has been tried unjustly, and the brand of convict should be removed by law. If he is not a convict, why should he be placed in an asylum for criminals?

In my experience in the Eastern Penitentiary it did not happen more than twice or three times during a year that a prisoner who was perfectly sane on entrance (according to our record) and without an insane tendency, became insane during confinement. For these few cases of insanity space can be found in a separate ward in any State asylum. It is a disgrace to the civilization of the present age to imprison the insane, the feeble-minded, and the imbecile as convicts for a definite period, and then after the expiration of their sentence to set them free without let or hindrance, allowing them to commit fresh deeds of violence and to be again sent to prison for another term of years. I have known of a chronic paranoiac being sentenced to the Eastern Penitentiary six times in the course of eight years for deeds which were clearly the result of his mental infirmity, and my remonstrance against such a procedure was not encouraged by the authorities, but rather opposed. I have known of an imbecile boy receiving a sentence of fifteen years for setting a barn on fire, and his knowledge of the right and wrong of his action was no more than that of a two-months-old baby.

The courts are primarily to blame for this state of affairs, but a wise and intelligent prison management should be more anxious to make known this fault and should urge some action to prevent its occurrence. The medical profession is also to blame since because of the confusion that exists in connection with the acceptance of expert testimony the public has been

inclined to ignore the findings of alienists and to allow men to go to prison who are fit subjects for asylums. It seems to me that it is necessary for the judges and medical experts to come to some definite understanding in regard to insanity and what constitutes culpability before the insane convict question can be settled.—*Medical News*, July 17, 1897.

MEMBERSHIP IN THE AMERICAN MEDICAL ASSOCIATION.

That the Association is growing in membership at an unprecedented rate is perhaps not known to all the members. We therefore take great pleasure in informing them that 763 names were added to the membership list at the Philadelphia meeting.

The books show an increase from June 1, 1896, to July 1, 1897, of 1,500 names. For the same period our books show an increase of an even 500 on the subscription list.

These are gratifying evidences not only of the sincere desire of the medical profession to organize under the Association banner, but that its *Journal* is fairly satisfactory. It will be the aim of the present management to make the *Journal* more and more useful to our colleagues with each succeeding issue.

This is an appropriate occasion to invite members to do their part toward increasing the membership. Help us pass the ten thousand mark before the close of this year. Every one can help. Blank applications for membership can always be had by writing to this office for them. "Be not weary in well doing."—*Journal A. M. A.*, July 17, 1897.

DILUTED FLUID EXTRACTS ARE NOT TINCTURES.

"Tinctures are very frequently made from the fluid extracts, and some manufacturers issue formulas for making them this way. There is no proper or admissible way of making official tinctures other than by the pharmacopoeial processes, and diluted fluid extracts are not tinctures and cannot properly or safely be labeled or dispensed as such, however common the objectionable practice may become."—*Annual List of Dr. E. R. Squibb*.

New Publications

A PRACTICAL TREATISE ON DISEASES OF THE SKIN. For the use of Students and Practitioners. Fourth and Revised Edition. By James Nevins Hyde, A.M., M.D., and Frank H. Montgomery, M.D. Illustrated with one hundred and ten engravings and twelve plates in colors and monochromes 8vo, pp. 808. Lea Brothers & Co., Philadelphia and New York. 1897.

That a book has reached a fourth edition in so few years certainly attests its worth.

We are aware of no one volume of recent date that contains so much material, or is so concise in style. Endemic and epidemic affections are given the proper quota of pages. Unusual manifestations and diseases due to climatic influences have received adequate attention. The classification of disease is that adopted by the American Dermatological Association. By the addition of new chapters or the adaptation of old ones to the newer ideas, the book is a representative of the present status of dermatology. In the affections of the glandular system the author has wisely included "Hydrocystoma" without any reference to the contention upon the subject. Dr. Hyde has also given more space to the exanthemata than is usually found in works of a similar character, thus satisfying a long experienced desideratum, especially on account of the diagnostic differences between these and other affections in which thermic changes are evident. The remaining chapters contain all that is required by the student of dermatology, and are arranged in such a manner as not to confuse the general practitioner and greatly to assist the specialist.

J. A. C.

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THE *Medical Gazette* Publishing Co., of Cleveland, Ohio, announces a small volume soon to be issued with the title "About Children," by Dr. Samuel W. Kelley. The book will consist of six lectures containing information for nurses, medical practitioners, students and all who have the care of children.

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THE PHILADELPHIA POLYCLINIC

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HARD FIBROMA OF THE MAXILLARY SINUS WITH PYEMIA OF THE FRONTAL SINUS.

BY L. J. HAMMOND, M.D.

Instructor in Diseases of the Throat and Nose in the Philadelphia Polyclinic; Visiting Surgeon to the Samaritan Hospital, Philadelphia.

JAMES T., aged 38, an Irishman by birth, laborer in a chemical works, consulted me February 15, 1897, for the relief of violent pains he was suffering in the left side of his face and forehead. The pain, which was almost unbearable when I saw him, had been slowly progressing for nine weeks previous, though he states that for some months he had been greatly annoyed from inability to breathe through his left nostril, which discharged freely, the discharge being purulent and frequently contained considerable blood. The pain had resisted all manner of medical treatment, and he had been advised to have the teeth on the left side of the upper jaw removed, thinking the condition due to dental nerve irritation. The expected relief, however, was not secured, but the trouble rather increased; and in addition to the supuration from the nose, he had now, after the removal of the teeth, quite a discharge, mucous in character, from the site of the second bicuspid tooth. His work compelled him to handle vitriols, which he said was the cause of the loss of the cartilaginous septum of the nose two years before. There was no history other than the occupation which could throw any light as to the cause of this condition. The man was well developed, and had enjoyed excellent health with the exception of the trouble with the nasal cavity.

INSPECTION.—There was every indication of great suffering; considerable fullness of that side of the face, especially over the left cheek; considerable nasal intonation of the voice; and the cheek was constantly bathed with lachrymal secretion.

EXAMINATION.—Examination showed the

nasal cavity filled with pus and scales, on the removal of which the inferior turbinal body was myxomatous in appearance, while the middle turbinal body was practically destroyed; the outer wall of the nose was necrosed, and a considerable portion of it was absent, causing a free communication between the maxillary sinus and left nasal cavity, the edges of the opening



Fig. 1a.—Granulations and thickening about Margin of Opening into Sinus.

being thickly studded with granulation tissue. It was necessary to remove the polypoid material, and a considerable quantity of the granulation tissue, in order to continue the examination throughout the entire nasal cavity; when this was done, a large part of the bony structure of the nose was found



Fig. 10.—Showing Loss of Substance of Outer Wall.

necrosed, and it was not difficult to trace the pus sinus directly through the infundibulum and ethmoidal cells into the frontal sinus. After removal of the granulation tissue from the outer wall of the nose around the margin of the perforation into the maxillary sinus, the latter cavity was found to be filled with a dense mass, which so completely filled the cavity as to be readily seen by reflected light



Fig. 11.—Showing growth, Posterior View.

from the forehead mirror through the anterior nares; the tissues covering the alveolar margin of the bone were decidedly atrophied, especially about the bicuspid region,

and they could be readily lifted from the bony alveoli back to the region of the wisdom tooth; a probe passed through the bicuspid tooth site entered the sinus, and at once met with resistance by the tumor within. A thorough exploration of this sinus, both through the alveolar opening and through the nasal cavity, showed me that its depth—or its base, so to speak—was far below the nasal cavity, and also that the central elevation corresponding to the roof of the mouth was unusually well developed, therefore practically dividing the cavity by this elevation or septum into two. As the growth was of such large size and adherent to the lining membrane of the entire posterior wall of the sinus, it was decided to remove it by opening the sinus at its lower anterior portion. By this means of removal it was not only possible to more thoroughly explore the canal, but also to secure better drainage and a more thorough control over the hemorrhage, which is very excessive in growths of this character. The back portion of the sinus could not have been drained through the nasal route owing to its depth so much below the nasal floor.

The following operative procedure was employed:—An incision was made through the median line of the upper lip and carried into the nostril on the left side; the soft tissues were raised from the bone up to the nasal orifice, and the entrance to the sinus was made on a line with and external to the nasal process of the superior maxillary bone; in this position the bone is very thin, covering the sinus, requiring but a few strokes of the gouge to complete the entrance into the cavity; the opening should be enlarged to enable the field of operation to be thoroughly exposed; the wire loop of Wild's snare was passed around the growth, and after separating it from its attachment, it was dragged through the opening with the forceps, the point of attachment being so large and the growth so firm that it was not possible to remove the entire base by means of the snare,—this, however, was accomplished with the curette; the cavity was then washed out with an aseptic solution and packed with sterilized gauze, one end of which was brought out at the opening through the bone to serve as a drain, having the opening through the wall of the sinus into the nose,



Fig. III.—Showing Line of Incision and Opening into the Maxillary Sinus, also Bicuspid Opening into same.

the other end of the gauze was carried into the nasal cavity, and this would, of course, prevent dragging the entire packing through the external opening; the bleeding being so excessive that it was necessary to pack the cavity full. The extensive amount of packing was removed as soon as the danger from hemorrhage had subsided (thirty-six hours), and the further packing consisted only in passing a small quantity of gauze through the anterior opening to the extreme back part of the sinus.

Microscopic examination showed the growth to be firm fibroma, the section showing a grayish-white fibrous appearance. The caries within the nasal cavity was curetted away, but it was found impossible to clear away a track sufficient to drain the frontal sinus through the nasal cavity. I decided, therefore, to trephine the sinus, and after a thorough cleansing of it, to establish a drainage by retrograde method. An incision was therefore made directly over the promontory of the roof of the nose, and continued above the superciliary ridge, far enough to permit the tissue when dissected back to expose the inner edge of the superciliary ridge: at this point the sinus is reached through the very

thin table of bone. I believe an incision made in this way will cause less scarring than a semi-circular one, which might be less difficult, though it would in addition to producing greater scarring, also necessarily interfere with the upper eye-lid. The sinus was readily exposed and the mucous membrane was studded with granulation tissue, greatly thickened; the entire cavity was filled with pus which could not escape owing to inadequate drainage; a probe was forced through and the cavity was thoroughly washed with a boric acid solution and packed with sterilized gauze, bringing the free end of the packing out at the most dependent portion of the incision to act as a drain. There is one point in connection with opening of this sinus to mention, and that is the extreme thinness of the inner table, so thin was it in this case that the gentle pressure used in curetting it with a small curette caused noticeable sagging, and it would require but slight force to rupture it into the membranes of the brain. These cavities (the maxillary sinus, the frontal sinus, and the nasal cavity) were washed after the first twenty-four hours twice daily with a hot saturated boric acid solution; the pain which had been unbearable

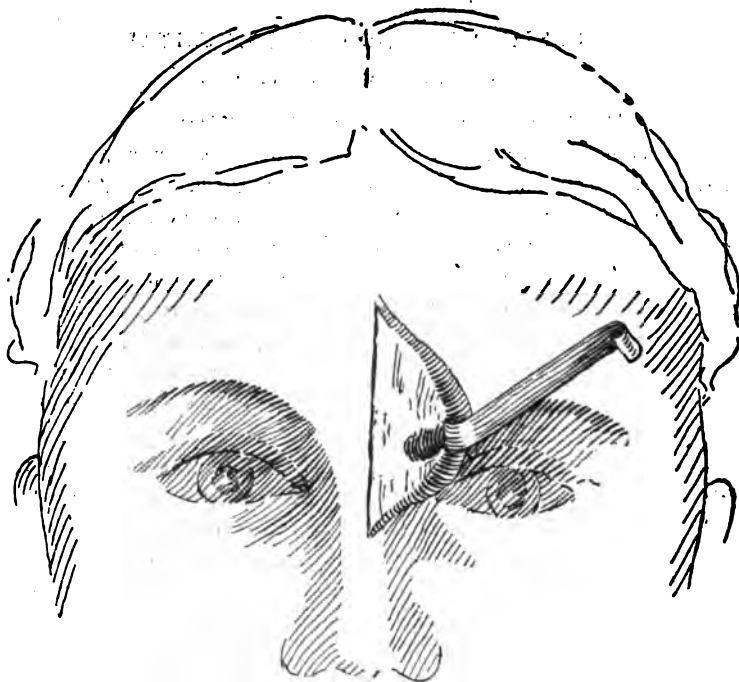


Fig. IV.—Line of Incision for and opening into Frontal Sinus.

was but slightly relieved until after the packing had been removed from the antrum, when it began to subside very rapidly, and at the expiration of five days had entirely subsided. The man made a most satisfactory recovery. He was discharged twenty-eight days after the operation, and within a month I received a letter from him stating that the good results were still continuing. The cause of pain here is, of course, apparent to all, the action of the dental and the infra-orbital nerves was interfered with by this growth, as well as through infection from the constant purulent condition.

Concerning polypi within the maxillary sinus, it may be said that they are extremely rare, and in a series of 360 cases reported by various operators where pathological processes had invaded the maxillary sinus from the nasal cavity, but four of them would I consider true fibroma. It is possible from specific origin to have the outer wall of the nose slough away or be destroyed, and a

general productive inflammatory condition of the mucous membrane—or in other words, granulation tissue—follow within the nasal cavity.

The condition in this case was undoubtedly the result of the irritating vapor which the man was constantly subjected to throughout the day, as quite frequently I have seen men who are employed in the same way suffer from loss of the nasal septum, and in a few cases there has been a sinking-in of the nose, owing to the loss of the internal support. There was no history of syphilis in this case, and I am satisfied in my own mind that his statements were correct.

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SEPTIC INFECTION OF THE JOINTS.¹

BY JAMES K. YOUNG, M.D.

Professor of Orthopedic Surgery to the Philadelphia Polyclinic.

ON several occasions I have called your attention to the relative frequency of tuberculous affections, of the joints. Out of the large number of joint cases applying for treatment at the Orthopedic Dispensary, over 30 per cent. are tuberculous in nature. Of these the spine is affected in 15 per cent. of the cases, the hip in 13, the knee in 3, and the smaller joints much less frequently. Septic infection of the joints is of much less frequency, being comparatively a rare affection. Septic affections of the joints include gonorrheal synovitis, acute septic arthritis and acute epiphysitis of infancy.

The first case to which I shall call your attention is one of gonorrheal synovitis in a young man who was treated at this clinic some four weeks ago, and who has just returned to report his progress. You will remember that four years ago he had an attack of gonorrhea, following which he had the symptoms of an acute synovitis in the left hip-joint. Pain, swelling and heat were followed by false ankylosis of the joint, and a continuance of the swelling, with atrophy of the muscles of the limb. These adhesions were forcibly broken up, and he returns to show the presentation you see. He walks perfectly well, but upon examination there is still some limitation of motion upon forced flexion and extension. The patient is perfectly satisfied with the position and condition of the limb, but another attempt will have to be made to increase the amount of flexion and extension before it will be a success from an orthopedic standpoint.

The importance of these cases of gonorrheal synovitis is chiefly in their prognosis when compared to cases of osteitis. With the history which he states he has had and with the condition of the limb found at the first examination, the opinion was given that the ankylosis was of the fibrous variety; that

the prognosis was good; and that under forcible extension and flexion the limb would be put into good condition. There was no shortening of the limb, and atrophy, though present, was slight. The marked fixation of the limb would give the impression of an osteitis, but the history of the case excludes this. Upon examination there was found a systolic murmur in his heart, and in all these cases of gonorrheal synovitis you should first examine the heart carefully for valvular lesions before giving ether. In a similar case two years ago, in which we broke up the adhesions in the wrist-joint, synovitis following an attack of gonorrhea, the same condition existed in the heart. The patient became cyanosed, and the anesthetic had to be withdrawn. Gonorrheal synovitis affects other joints besides the hip, and is apt to attack the smaller joints (wrist).

There is also a form of synovitis occurring in females who are subject to severe leucorrhea, in which there is not a question or possibility of its being of gonorrheal origin. In a recent case of this kind both wrist-joints were affected in a young lady of 17; and I am inclined to think that there is a relationship between the absorption of leucorrheal pus and synovitis of this kind other than that complicated by gonorrheal synovitis. In either event, these cases are septic in character, and are particularly interesting from the etiologic and prognostic standpoint.

In some of these cases the cause appears to be the sequelæ of grip. Abscesses in other parts are usually associated, as in the middle ear or the subcutaneous tissue.

The next case is that of a young woman of pronounced blonde type, robust appearance, 23 years of age, and a domestic by

¹ Portion of Clinical Lecture delivered at the Philadelphia Polyclinic, etc.

occupation, suffering with a septic arthritis at the left wrist-joint. She had consulted a number of surgeons, and was referred to me by Dr. James Hendrie Lloyd. About one year ago she had a suppurative of the middle ear, and two months later an acute inflammation of the left wrist-joint. The hand is pronated and flexed, the joint is ankylosed and swollen, but slightly painful on motion. She has worn a splint for so long that it will be well to discontinue its use, and to commence passive movements with massage. If free movement of the joint is not accomplished within a month, the adhesions will be broken up under an anesthetic. Under this form of treatment we can anticipate a rapid and permanent cure.

The next case is one of acute septic infection of the cervical spine and hip joint, in a girl of 10 years. The father of this child died from psoas abscess, but there does not appear to be any connection between the two affections. Shortly after birth the child was attacked by an acute inflammation of the hip-joint, going on rapidly to suppuration, and followed by multiple abscesses of the subcutaneous tissue, from which she made a very slow convalescence. The peculiarity of the case is the size and depth of the cicatrices. A similar case has recently come under my observation, in a boy 3 years of age, suffering from acute epiphysitis of the left hip. When 10 months old he had two abscesses over the xiphoid appendix, and also an abscess of the left hip. Upon examination the left hip was found to be one inch shorter, with great thickening over the trochanter, about the region of the cicatrice but the joint motion was perfect. No cause could be assigned for this acute attack; but this case is in every way identical with one which I reported in the *American Journal of the Medical Sciences* in May, 1890, in which case there was a history of infection through the umbilicus. In both cases the elbow joint was affected also. In the case of the boy icterus neonatorum was associated in addition.

A solution of morphine in collodion painted over the region affected will often relieve the intense pain attendant on *herpes zoster*.

A QUALIFIED QUACK.

In a fashionable quarter of Paris one "Alexis" does a roaring trade as a bone-setter and herbalist. To him one fine day there came a commissioner of police with an invitation to follow him to his office. The quack took the matter quite coolly, and, while preparing to obey the summons of the law, said to his servant, "Don't send any one away; I shall be back in a few minutes." The representative of the civil power hinted with a significant smile that his return might possibly be a little delayed. On arriving at the police office, "Alexis" asked the commissioner for a moment's private interview. This, after some demur, was granted. When they were alone, "Alexis" took from his pocket a diploma of Doctor of Medicine of the most authentic character, at the same time begging the astonished commissioner not to betray his secret, on the ground that he would lose all his practice if it were known that he was a regularly qualified doctor. He added, by way of explanation, that he had tried practice in the orthodox way and had nearly starved behind his brass plate. An inspiration came to him to start as a quack. He removed his plate, dropped his surname, gave himself out for a bone-setter—and he might have added, pointing to his rooms crowded with patients, "*Si monumentum queris circumspice!*" This interesting story carries its truth on its face. I do not know whether "Alexis," doctor though he be, has much knowledge of medicine, but he evidently knows mankind.

—Practitioner.

To Determine the Death of the Fetus.—Knapp has shown that the death of the fetus is accompanied by the appearance of acetone in the urine of the mother. This may easily be demonstrated, according to *La Presse Med.*, May 25, 1897, by the fuchsin test of Chautard. A solution of fuchsin, 1 to 2000, is decolorized by sulfuric acid. To make the test, half an ounce of urine is poured into a test tube, and a few drops of the fuchsin solution added. If acetone is present, the color of the urine becomes violet, the depth of color depending on the quantity of acetone. This simple test is within the reach of every practitioner.—*Medical News*, July 24, 1897.

CONTRIBUTORS to the Philadelphia POLYCLINIC are requested to write their prescriptions in English, and to use the accepted chemical nomenclature. Thus, instead of *acidum carbolicum*, write *carbolic acid*; instead of *bicarbonate of soda*, write *sodium bicarbonate*. It is correct, much more intelligible, and prevents mistakes.

THE PHILADELPHIA POLYCLINIC

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PHILADELPHIA, AUGUST 7, 1897

SUMMER DIARRHEA.

DURING the last few days there have been seen in the city many of those cases of gastro-intestinal disturbance that in ordinary years are frequent even earlier. The comparatively cool weather of July greatly lessened their number, but they will probably be numerous during August and September. The treatment is simple in the majority of cases; but in cases treated "domestically," as well as in many placed under the care of physicians, there is frequently made the great mistake of attempting—by the use of opiates or astringents, or both—to check diarrhea before the offending matters have been removed from the alimentary canal. The first step in treatment should be to "cleanse the primæ viæ." This may be done by giving calomel in small, frequently repeated doses; or, in our experience, preferably by the use of a mixture of castor-oil and spiced sirup of rhubarb (equal parts); the dose for an adult being half-an ounce to one ounce of the mixture, repeated, if necessary in two or three hours. When much pain is complained of, fifteen to thirty minims, or even a dram or two, of paregoric may be added to the dose.

Should it be considered inadvisable, as it may often be in children, to wait for the action of the purge, lavage of the stomach, or irrigation of the bowel, or both procedures, may be resorted to.

The stomach and intestine having been cleansed by washing or by the cholagogue cathartic or by both, sedative, antiseptic and astringent medication is now in order. For this purpose bismuth compounds and phenol or naphthol compounds are to be preferred. Phenol salicylate, carbolic acid, guaiacol carbonate, creosote, beta-naphthol, naphthalin, all are useful. Our usual preference is for a powder composed of equal parts of benzonaphthol and bismuth salicylate; of which the dose is from two grains to thirty grains, according to the age of the patient and the severity of the symptoms. An average dose for adults is ten grains every second to fourth hour. If necessary, five grains, more or less, of Dover's powder may be added to the dose.

Regulation of the diet is necessary and may sometimes suffice without medication. Ice and ice-water are to be interdicted, but the patient may drink freely of boiled water or pure, unboiled water (still or sparkling) that has been cooled by placing the container in the ice-box. To adults, milk is often harmful, and to children almost invariably so. Sterile or scientifically modified milk is no better than ordinary milk under these circumstances. It decomposes in the septic stomach or bowel. Barley-water or rice-water should be the exclusive diet of a child for a day, or two days, or three days, according to circumstances. The parents and friends will usually object, but the physician must be firm. When the stools have ceased to be offensive, and the alimentary tract has been apparently freed from toxins and noxious organisms, Pasteurized milk, beef-juice freshly prepared at home, or one of the good "infant's foods" not requiring the addition of milk may be given, with caution.

In the case of adults who have not previously been taking milk, one may give small quantities of boiled milk, to which water, pancreatin and sodium bicarbonate have been added in proper proportions for digestion. Of this, about four ounces should be sipped slowly every three or four hours. It is best given warm; that is to say, the digestive powder dissolved in an ounce of cold water should be added to 3 or 4 ounces of warmed milk (previously boiled), and this mixture be slowly sipped, without further standing. When vomiting has not been a feature of the case, the digestive powder may be omitted, an alkaline diluent, such as Vichy or seltzer water, being employed instead.

Under treatment of this character, prompt recovery may be confidently anticipated.

S. S. C.

Editorial Note

Guaiaac in Pyelitis.—In the *Medical Register*, 1897, Vol. i, No. 3, Dr. H. H. Levy records several cases in which the administration of tincture of guaiacum seemed to bring about recovery from pyelitis, which in one case was associated with hydronephrosis. The origin of the cases does not appear from the report. Dr. Levy fails to find in the text-books anything to throw light on the power of guaiac to affect the kidneys. He believes that it acts in the course of its elimination, and has instituted chemical studies of the urine of patients taking the drug with a hope of arriving at some explanation of the power it has clinically demonstrated. The dose was one fluidram of the official tincture, stirred in four ounces of fresh milk, and usually given every fourth hour. When purging or diaphoresis were too great the dose was reduced. Sometimes paregoric was given intercurrently to control diarrhea. Instead of milk, mucilage of flax seed or gum arabic may be used to suspend the guaiac.

In the Clinics

Under the Editorial Charge of DR. W. OAKLEY HERMANCE.

DR. DAVIS called attention to the *Carl-Brown curet* as the only curet applicable to the recently pregnant uterus.

* *

A CASE of deafness of seven years' standing was cured by Dr. Randall recently, by the removal of a *cerumen plug*. The ear syringe directing a jet of hot water along the upper posterior border of the meatus is nearly the only method in use in this clinic for the removal of cerumen or other foreign bodies.

* *

Paroxysmal sneezing is akin to hay fever, but is an entirely distinct affection. When due to pressure of enlarged turbinates relief speedily follows the usual treatment. When due to the existence of sensitive areas in the nares Dr. Gibb has given speedy and permanent relief by lightly touching the areas with the electric cautery.

* *

Dr. Woodbury reports a case of *syphilitic necrosis of the septum and nasal bone* which illustrates the value of mixed treatment, and particularly of large doses of potassium iodid in controlling tertiary manifestations. A woman, 28 years of age, who had presented herself about a year ago with ulceration of the palate, followed by perforation and loss of several small fragments of bone, which had completely healed under mixed treatment, again presented herself for treatment in January. She had discontinued the medicine for several months and when she returned it was found that, although the mouth and throat were normal, except a light stellate scar which marked the former site of the disease, the bone septum of the nose anteriorly was affected and the mucous surface covered with granulations, under which the probe detected dead bone. There was a gumma over the right nasal bone near the

inner angle of the eye; this was tender to the touch and threatened to suppurate. She had considerable headache, but had a good appetite and was in fairly good condition. Dr. Vansant ordered her to resume the potassium iodid in solution, rapidly increasing the dose until she was taking seventy-five drops three times a day. She also took the mercury bichlorid (gr. $\frac{1}{10}$) after each meal, with alkaline douches and a few drops of mentholated petrolatum (10 grains to 1 dram) at night, in each nostril. Under this treatment the ulceration took on healthy action, a rather large piece of the perpendicular plate of the ethmoid loosened and was removed. The ulceration has ceased and the gumma at the side of the nose gradually disappeared. The patient has improved in general health and says that she is hungry all the time. She is living some thirty miles out of the city and reports for examination once a week and appears now to be in excellent health so that the iodid is given now in reduced doses. The salt is dispensed in a solution of 100 per cent. in water, and owing to the increased density of the liquid she may be taking considerably more than seventy-five grains at a dose, the quantity possibly aggregating four drams daily.

Society Proceedings

NEW YORK ACADEMY OF MEDICINE.

Section in Orthopedic Surgery.

Meeting of May 21, 1897.

OSTEOTOMY FOR INVERSION IN CLUB FOOT.

DR. TOWNSEND, at the request of Dr. V. P. Gibney, presented a girl, 5 years of age, whose feet had been treated by Phelps' operation, by braces and by building up the outer side of her shoes. On February 16, 1897, to correct inversion, subcutaneous osteotomy of both tibiae had been performed, and also right achillotomies. The lower fragments of the tibia were rotated outward and the limbs put in plaster of Paris. The inversion had been entirely corrected. Mr. R. L.

Swan, of Dublin, who had described this operation, after an experience in the treatment of twenty patients with good results, had said that rotation of the limb as the result of equino-varus, and which persists after the latter is corrected, is due to trouble below the knee, that when these patients walk and attempt to toe out, they throw the entire limb out by rotation of the thigh, and that the gait is awkward. The toeing-in is due to the fact that the entire leg is rotated in and the external malleolus is too far forwards. To overcome this he divides the tibiae only, rotating and bringing outwards the lower fragment, thus placing the internal malleolus further forward as regards its relation with the external malleolus.

DR. JUDSON said that, for the prevention of inversion, he relied on the thorough correction of the equino-varus. If this was done the child would avoid toeing-in, either unconsciously or later, from pride.

DR. WHITMAN said that division of the bones of the leg was a very old operation for the correction of the in-toeing of club-foot.

DR. TOWNSEND said that Mr. Swan divided only the tibia and was very careful not to divide the fibula.

DR. TAYLOR had noticed that the feet in the case shown had not been fully corrected before the operation. The child walked very well now and the result was very good, but it seemed uncertain that this condition would prove permanent. He believed that the persistence of inversion in many of these patients was due to incomplete correction of the deformity.

CALCaneo-VALGUS WITH SUBLUXATION OF THE ASTRAGALUS.

DR. TAYLOR presented a baby affected with congenital calcaneo-valgus, with a very unusual degree of dislocation, or subluxation forward of the astragalus. The heel was unduly prominent. The astragalus was displaced forward while the fibula was behind its normal position. Treatment had been gradual reduction and plaster of Paris fixation.

COXA-VARA.

DR. WHITMAN presented a boy, 16 years of age, affected with bending of the neck of the femur of about twelve months' duration.

He walked with a limp and eversion of the foot. The elevation and prominence of the trochanter were increased by flexion. Limitation of abduction, actual shortening of one-half an inch with marked apparent shortening from habitual adduction were all present. The treatment would be by removing the weight of the body from the weak femur by the use of a perineal crutch, massage, forcible stretching of the adductors and, if necessary, sub-trochanteric osteotomy. Bending of the neck of the femur was not due to general rickets or the rickets of adolescence, of which there were cases on record. There was, however, a weakness of adolescence which, under favorable conditions, caused this and similar deformities.

Current Literature

A Case of Brain Tumor, with Autopsy.—Kempner and Von Fragstein (*Wiesbaden*) report a case of tumor of the brain in a man, aged 62 years, the subject of alcoholism, but free from specific infection. In February, 1892, the patient was seized with an apoplectic attack; this was succeeded by psychical disturbance, lasting a week, after which he complained of headache and poor sight. Examination showed R. and L. Em. V. = $\frac{1}{8}$; pupils of normal size and reacting to light; external ocular muscles normal. Ophthalmoscopic appearances negative. Left-sided homonymous vertical hemianopsia. Urine contained neither albumen nor sugar. During the following six months he suffered from severe uncontrollable pain in the head, especially in the occipital region, at the same time manifesting profound mental disturbance, with delusions. Daily attacks of vomiting, sometimes after and at times independent of taking food, now came on, without improvement in the other symptoms, but with occasional periods of loss of consciousness. The patient had become almost blind. Examination of the eyes (February, 1893) showed normal external appearances; V. = fingers at 6-8 feet; pupils equal and react to light; double optic neuritis, with numerous hemorrhages into the retina and macula; retinal veins enlarged and tortuous, arteries narrowed; the fields could not be taken. Lungs, heart and urine normal. Patient cannot walk without assistance. No ataxia,

but weakness and tremor of the legs. Death occurred one month thereafter. Diagnosis: tumor (glioma) of right occipital lobe.

The clinical picture in this case is thus seen to be made up of severe headache, particularly in the occipital region, with repeated emesis, vertigo, delirium, loss of memory for recent events and psychical disturbance. Lues was denied and the lungs were free from tubercles; it could not be determined whether the patient had ever had any trauma of the head, or whether any hereditary stigma existed.

Such a complexus of symptoms suggested cerebral disease; in the absence of motor and sensory disturbances an exact diagnosis, however, of its nature and seat was difficult. In this connection, the ophthalmoscopic findings were of great importance. The furious delirium and intense headache of course suggested meningitis as a complication of the primary affection; but the optic neuritis and hemianopsia brought the probability of tumor strongly into the foreground. The question arose what was its nature and where was its seat? In the absence of syphilis and tuberculosis, it was most probable that the neoplasm had its origin in the neuroglia, *i. e.*, was a glioma or sarcoma. The apoplectic seizure strongly pointed to glioma, for this species is often extremely vascular and hence readily disposed to hemorrhage. The problem as to its location was more difficult; the presence of hemianopsia excluded the optic nerve as the seat; it could only be assumed that it was located in the right optic tract, in the radiating fibers between the tract and the cortex of the occipital lobe or in the cortex itself.

The autopsy showed granular degeneration of the liver, kidneys and heart; meningitis of the convexity, atheroma of the cerebral vessels; glioma of right occipital lobe, with partial softening, thus confirming the diagnosis made during life.

T. B. S.



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THE PHILADELPHIA POLYCLINIC

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HYSTERIA IN EARLY LIFE.¹

BY AUGUSTUS A. ESHNER, M.D.

Professor of Clinical Medicine in the Philadelphia Polyclinic; Physician to the Philadelphia Hospital.

Through the labors of the French school of neurologists in particular hysteria has been given the recognition it deserves as a distinct, fixed clinical entity, with a train of symptoms as characteristic as those of any of the acute specific infections or intoxications. That the disorder has a pathology of its own I have no doubt the results of future investigation will demonstrate, but as yet we need more knowledge, especially in the domain of physiologic and pathologic chemistry, before we may hope for a solution of this aspect of the problem. From both inference and analogy it seems not unreasonable to believe that hysteria depends essentially upon metabolic or nutritional changes in the cellular elements of the central nervous system, in consequence of which there may result alterations in function and changes in relation, whence arise the varied and protean symptoms of the developed disease. It may not be extravagant to hope that further refinement in staining methods, in which there has been so remarkable an advance in the past decade, may make possible the detection of changes in nerve-cells that at present elude closest scrutiny by existing means of investigation.

Though we retain the name, which perpetuates the original erroneous conception of its pathology, we have learned that hysteria may exist not only in women deprived of their uteri, but even in men as well. Hysteria respects neither sex nor age, although by far more common in females than in males, and comparatively rare in early and in late life. The explanation of these differences must be looked for in the varying susceptibility and receptivity of the nervous system with regard to those influences to which in a

general way we have learned to attribute etiologic activity. According to statistics cited by Lloyd in a *Text-Book of Nervous Diseases* (edited by Dercum) hysteria is most common in women at the age of twenty years. Briquet found one-fifth of the cases in the female sex to occur before puberty; and rather more than one-third between the ages of fifteen and twenty. Patault found the disease most frequent in men between the ages of ten and twenty. Mills, in the *Cyclopedia of Diseases of Children* (edited by Keating), reports a case of catalepsy or automatism in a girl two years old, and refers to a similar case reported by Jacobi in a child three years old. He cites also a case of hysterical paralysis in a girl eighteen months old, reported by Gillette. The evidence goes to show that hysteria, while perhaps not so common in childhood as it appears to be, is yet sufficiently so to warrant the report of a small group of cases illustrating some of the phases of the disease as it appears in early life, as well as some of the difficulties and doubts that at times attend its recognition. The causes, symptoms, course and treatment of hysteria are much the same in children as in adults, except in so far as these are influenced by modifications dependent upon differences in mental and physical growth and development.

CASE I.—N. G., a schoolgirl, nine years old, presented herself at the clinical service of Dr. Morris J. Lewis, in the Orthopedic Hospital and Infirmary for Nervous Diseases, on April 21, 1897, with the statement that about a month previously she had been much frightened by being placed by her father, who was at the time intoxicated, in a room apart from the rest of the family. The child cried and complained of feeling sick. A few hours

¹ Read before the Philadelphia County Medical Society, June 23, 1897.

later, during the evening, while in bed but still awake, the right hand and arm began to tremble and soon the head likewise to shake. In the course of several hours more the left hand also began to tremble. There was no convulsive movement and no loss of consciousness. The little patient now fell asleep and slept quietly through the night. On arising the next morning the movements returned, and, besides, there occurred in the lower extremities rapid movements resembling those made by a horse in trotting.

In this attack it is said that consciousness was lost, the eyes being closed and the teeth being grit, but the tongue was not bitten. The attack lasted about five minutes, and at its close the child was quite itself again and in nowise dull. In the course of the succeeding day some ten or twelve attacks of like character took place, but sleep was undisturbed during the night.

On the following day the attacks were repeated with about the same frequency. In the next three weeks the number of attacks averaged fifteen a day, but after this it reached as high as thirty. In none had the tongue been bitten, but the mother maintained that consciousness was lost in all. Each attack was followed by headache. No attack was known to have occurred during sleep. For a week the gritting of the teeth had ceased.

A number of attacks occurred at clinic and presented the following features: While sitting the child suddenly began to droop her head, then to move it forward and backward. Next the right hand began to tremble, and then the left. Finally the arms and legs also were set in active movement, as in the process of walking on all fours. Frothing at the mouth occurred. The eyes were closed and the child appeared unconscious. The attack terminated in clenching of the fists and tonic rigidity of the members. The mental state following was unobscured. In the intervals between attacks there was tremor of the right hand, which ceased with the onset of the attack, and also when the child's attention was diverted or engrossed, as in conversation.

The child was well nourished and of good color. Gait and station were normal; the grasp of the hands was puerile; the knee-jerks were capricious. The action of the heart was rhythmic, its sounds clear. There was no

obvious derangement of tactile or painful sensibility. In the family history the only points worthy of note are the occurrence of chorea in a cousin and of rheumatism in the mother's family.

The patient herself had been born at term, had nursed at the breast for sixteen months and had been free from noteworthy illness and from convulsions during early infancy. She began to walk at the age of fifteen months, and was rather late in speaking. At the age of two she suffered from measles and at four from whooping-cough. Following the latter persistent internal strabismus had been noticed. Epistaxis had been frequent for four years, occurring mostly at night, but apparently being unattended with evil consequences. For a year the bleeding from the nose had been replaced by periodic headache, which was greatly relieved by the prescription of glasses correcting a high degree of hyperopia and astigmatism. There were no changes in the fields of vision. The child had suffered frequently from attacks of croup. She cried upon the slightest and even without any real provocation.

She was directed to take ten drops of peppermint water and the correction of the refractive error undertaken, and she was told that if she did not speedily improve she would be placed in the hospital. The attacks at once moderated in frequency and severity, and the general condition was substantially improved.

There can, I think, be no doubt as to the hysterical nature of this case. Though lacking in some of the details of the complete clinical picture of hysteria, it yet presents so many distinctive features that mistake seems scarcely possible. The mode of onset, the character of the symptoms, the paroxysmal seizures, the emotional mobility, and finally the results of treatment, constitute such a grouping as is not encountered in any other disease. The loss of consciousness, whether merely apparent or real, while of course suggestive of epilepsy, cannot be held to exclude hysteria, as such true loss may, I believe, attend the latter as well as the former condition.

CASE II.—N. B., a girl, nine years old, came to the clinical service of Dr. Lewis at the Orthopedic Hospital and Infirmary for Nervous Diseases, on April 14, 1897, with a

history of several times daily for two years going through a series of peculiar movements, which consisted essentially in dropping the arms and spreading out the hands as if to catch herself in the act of falling, without loss of consciousness. She had had, besides, three convulsive seizures, in which she kicked vigorously, rolled up her eyes, etc., and in which it was thought that consciousness was lost. In some of the attacks urine was passed involuntarily, but the anal sphincter was continent and competent. In none was the tongue bitten. The child was exceedingly emotional, crying readily and being subject to attacks of causeless laughter. At times there was headache. The knee-jerks were preserved and station was steady: The dynamometric record was ten in each hand. There was no sensory derangement. The family history showed no evidence of neurotic predisposition. The little patient herself had never been seriously ill.

Under date of June 21, 1897, it is noted that the onset of the attacks followed the eating of a quart of peanuts. At that time the child had a continuous series of convulsions for two days. At present it is said that the seizures are repeated at intervals of five minutes during the day, although but one occurred during the quarter of an hour the child was under observation, and in this, which lasted but a few seconds, the child doubled up on its mother's lap slightly and dropped its head forward. It might have fallen had it not been supported. The attacks take place not only in the presence of others, but also when the child is alone, and she has injured herself in several. They are superinduced by the ingestion of such articles of food as meat, cabbage, tea, coffee, etc.

The child is exceedingly pallid; its digestion is poor and its bowels constipated. Pin prick is everywhere readily appreciated. The heart is said to beat rapidly at the close of the attacks, but auscultation fails to disclose evidence of organic disease. Dr. A. G. Thomson was unable to detect any abnormality of fundus or of muscular balance. Hypnosis was attempted, but apparently without success.

While some of the features of this case are strongly suggestive of hysteria, others are not less strongly suggestive of epilepsy, and

without further study the discrimination is by no means easy. I admit that the criticism may be justly made that the doubt surrounding the diagnosis should be sufficient to exclude the case from this report, but if there is no other justification for its inclusion I may be permitted to retain it in order to emphasize the difficulty with which the differentiation of the two diseases is sometimes attended, and to dwell briefly upon the fact that the same patient may be the victim of both.

This difficulty in diagnosis, and especially as it occurs in children, is illustrated by a case that came under observation only to-day in the clinical service of Dr. Lewis at the Orthopedic Hospital.

CASE III.—A nervous mother brought her little daughter of seven to learn what was the matter with her. The child was pale and ill-nourished, but had no definite complaint. She had fallen about a month ago, striking her nose and suffering a copious epistaxis, which had been repeated some three weeks later. About two weeks ago the child was seized with severe headache, followed by high fever and delirium, continuing for two or three days. After the lapse of a week, the symptoms reappeared, lasting now, however, only throughout the night. Inquiry elicited the fact that two years ago the child had suffered from "congestion of the liver," in the sequence of which she was unable to walk for a period of some weeks. Gradually, with careful training, the power of locomotion returned. There had never been a convulsion or loss of consciousness, and there was no undue laughter or weeping.

Needle-prick on the right hand was less readily appreciated than upon the left; and the point of the needle was said to be felt upon the right side of the face as a piece of hot iron. Some doubt may be felt as to the results of this sensory examination, inasmuch as the responses of the child appeared to be influenced by the tendency of the questions. However this may be, the girl submitted bravely to painful impressions capable of causing an older person to wince.

The knee-jerks were preserved, the gait was normal; the heart was rather overacting, though entirely rhythmic, and its sounds were clear. Hypnotism was attempted, and appeared successful. At one time in the

course of this procedure the child, when directed by her mother to open her eyes, maintained that she was unable to do so. I have ventured to stamp this case with a diagnosis of hysteria, though fully alive as to its vulnerability and the possibility of deception on the part of both patient and clinician.

CASE IV.—S. H., eleven years old, was brought to the clinical service of Dr. Lewis Brinton at Howard Hospital by her mother, a music teacher, having two other children, and herself profoundly neurasthenic, with the statement that the child was suffering from spinal trouble, which manifested itself by the appearance of a swelling at the back of the neck. The mother related that she had suffered similarly during her pregnancy with this child, and this condition in her was attributed to "falling of the womb." Both mother and child suffered from time to time from sick headache, with nausea and vomiting. The general condition of the little patient was stated to be sometimes better and sometimes worse. She was said to be quick-tempered and self-willed, and she cried and screamed at times, particularly if not permitted to have her own way; although there had never been a convulsion or loss of consciousness. At times also there was undue

laughter. For various reasons, but especially on account of her emotional mobility, the child had not attended school regularly. Her appetite was described as ravenous; the bowels were regular and digestion was good. When headache and nervousness were especially marked the child vomited repeatedly, but improvement ensued in the course of some hours, following the taking of food. Sleep was variable, although as a rule it was good. The knee-jerks were preserved and common, and painful sensibility appeared to be intact. The pupils were full, equal, regular and reactive to light. The action of the heart was rhythmic, its sounds clear. Hypnosis was attempted on two occasions, but without success.

I look on this case as one of hysteria, somewhat ill defined though it be. While it presents none of the obtrusive stigmata of that disease, it is possible that time and further observation may lead to the detection of some one or another of the more characteristic phenomena. The intimate character of a disease is to be learned from a study of its anomalous as well as of its more typical forms. Neurotic parents are capable of exerting a deleterious influence upon their offspring through both heredity and association.

(To be continued.)

ACUTE OPTIC ATROPHY ASSOCIATED WITH TABES DORSALIS.

BY WENDELL REBER, M.D.

Ophthalmologist to the Franklin Dispensary, Clinical Assistant in Ophthalmology in the Philadelphia Polyclinic.

FOR the privilege of bringing to extended notice the following unusual phase of a not uncommon disorder, I am indebted to the kindness of Dr. H. F. Hansell, in whose service at the Polyclinic Hospital the case was studied. The history is as follows:

W. M., farm laborer, æt. 40, stated that six weeks prior to his appearance at the hospital his sight suddenly began to fail, and inside of two weeks he was consigned to comparative blindness without any apparent cause that he or his physician could assign. The patient was a married man, the father of several healthy children, and was himself a fine specimen of physical manhood. There was no history or evidence of any precedent trauma or illness. Syphilis was denied, nor

could any subjective or objective evidence be made out. Both knee-jerks were gone; the strongest reinforcement would not elicit the slightest patellar reflex. Station and gait were good. There was no girdle sensation, visceral crisis or marked disturbance of the peripheral nerves. The patient's statements as to lancinating nocturnal pains were too contradictory to be of any value. His vision was R. E. fingers at 6 inches; L. E. fingers at 1 foot; the anterior ocular segment was normal with the exception of the iris, which was absolutely immobile to light, accommodation and convergence in both eyes; pupils 5 mm.; ocular movements in all meridians smoothly and completely executed. The ophthalmoscope showed surprisingly atrophic disks for an affection which, according to the patient's testimony, was of but six weeks'

duration. The visual field of the right eye was contracted to an average of 15 degrees about the fixation point, and that of the left eye was limited to about 20 degrees around the fixation point save in the inferior temporal quadrant where it reached out 10 to 15 degrees further.

Because of the associated loss of the knee and iris reflex the patient was referred for opinion to Dr. Chas. K. Mills, who kindly wrote as follows:

"The patient seems to be suffering from one of the irregular forms of tabes. . . . He has little or no ataxia, but, as you know, some cases of tabes presenting early and rapidly progressive optic atrophy show but little ataxia."

The patient was put tentatively on mixed treatment and vigorous diaphoresis, but a couple of weeks later he sailed for his old home in Aberdeen, Scotland, and we were denied opportunity for further study or treatment of the case. Its etiology is involved in considerable obscurity, although our observations lead us to believe that a suspicion of cerebro-spinal syphilis in all these bizarre forms of tabes is justifiable. In "A clinical study of the correlation between the iris and the patellar reflex," conducted by Dr. Alfred Warren Wilmarth and myself at the State Hospital for the Insane, at Norristown, Pa., (*Annals of Ophthalmology and Otology*, July, 1896), it was found that "joint loss of both reflexes occurred among the non specific cases in 70 per cent., and among the specific cases in 77 per cent. of the cases examined, from which it would seem to follow that, either some intimate spinal association must exist between reflex iris paralysis and the loss of the knee-jerk, or that there must be sought some widespread lesion which invades both reflex paths in its progress. This process Dr. Wilmarth and myself concluded was a syphilitic one, expending its energy on the bloodvessels of the central nervous system, inducing a starvation of these delicate structures and thus so obtunding the cerebro-spinal

activity as to abolish both the iris and patellar tendon reflexes. Our conclusions are based on clinical facts solely, but this is the only method of approaching the subject with the evidence now at hand.

The rapid progress of the optic atrophy in the case just narrated is noteworthy, especially as it was a primary process, so far at least as could be made out from the patient's testimony. It would have been interesting to have proved therapeutically whether heroic anti-syphilitic treatment could in any degree influence the march of the symptoms and thus clear up the problem of the etiology of the affection.

In the Clinics

Under the Editorial Charge of DR. W. OAKLEY HERMANCE.

IN cases of *dermatitis herpetiformis*, in which a gouty or rheumatic diathesis can be found, large doses of salicylates have been found by Dr. Heller of material aid in overcoming the eruption and the prevention of further attacks.

* *

WHEN salicylates in small doses are poorly borne by the stomach it will often be found that a single large dose, administered in milk, before retiring, will be well borne and rapid in effect.

* *

IN a case of *unilateral parotitis*, in a colored boy, seven years old, with carious teeth, Dr. Eshner prescribed:

Belladonna ointment,

Mercurial ointment . . of each equal parts.

Apply topically morning and night. Mix.

And:

Cinchonidin salicylate 1 dram.

Divide in twenty tablets.

Dose: One every 3 hours.

* *

A COMBINATION of *boric acid* and *resorcin*, about 15 grains of each to $\frac{1}{2}$ ounce of oint-

ment base, will be found much more efficacious in cases of eczema requiring stimulation, than resorcin alone. The boric acid has, besides its sedative and antiseptic power, the property of reducing any overstimulation due to the resorcin. So Dr. Heller reports from Dr. Cantrell's clinic.

* *

A CASE of *malinger*ing recently occurred in Dr. Hansell's Ophthalmic Clinic in the person of a 12-year-old Russian boy who, for reasons best known to himself, claimed that his sight had suddenly failed. Vision was apparently reduced to the recognition of hand movements at two feet, notwithstanding which the boy had walked unaided from his home to hospital—fully a mile! The eyes were externally and ophthalmoscopically absolutely normal. To exclude hysteria as a possible factor it was suggested to the patient, while in an hypnotic state, that on waking he would see everything with beautiful distinctness. The suggestion, however, was unavailing. The next day, while the patient was sitting at one end of an 18-foot-room at the hospital, one of the assistants standing fully twenty feet away, beckoned to the patient by slight movements of his right index finger, to come to him, whereupon the boy immediately walked right out of the room and across the hall to him, showing beyond all peradventure that the boy's vision was unimpaired. It was afterward learned that the boy had been shirking school duties for some weeks.

* *

In the Ear clinic, Dr. Randall continues to urge and demonstrate the importance of *syringing with water above 105° F.*, especially for the removal of ceruminous masses. In a recent case his attention was called by an assistant to a plug which had resisted very persistent syringing, carefully employed. A glance showed large epidermal admixture almost constituting what is called "kerato-

sis obturans," and promising a difficult task; but obtaining water of 109–110°, straightening the canal well by traction and throwing a small stream at the most vulnerable points the mass was swept completely out by the fourth injection with a 2-dram syringe. Turning then to another new case with a history of intermittent obstruction for nine months, now for three months total on the left, in which the hard black mass had not been subjected to the least soaking or other treatment, he pointed out that such a prelude was wholly needless and often disadvantageous. The first syringeful was merely instilled, the second gently injected, the third more vigorously used returned brown stained, and each subsequent two drams brought fragments of the plug, until with the twelfth the last portion, the firm cast of the drumhead, was washed into the cup without causing the slightest pain or dizziness to the patient. The canal and drumhead were found clean and free from redness, and repetition of the procedure on the right side removed a plug apparently identical, but here the invisible crevices which had admitted the air and its sound waves, allowed of easier penetration of the fluid and two instead of three ounces of water sufficed to complete the task. As cases of impacted cerumen constitute one-seventh of aural practice, it seems well worth while for the practitioner to learn that efficient use of the syringe is not a matter of course nor beneath his earnest attention; and that water *as hot as can be borne* is far less likely to disturb his patient, while many times as efficacious as the "warm" water generally advised. Dizziness or even fainting must be looked for in any case and the patient warned to announce the first feeling of the sort; but it is least apt to occur when the fluid is hot. Caloric is the most potent addition that can be made to the syringing fluid and can supersede all others or the undesirable preliminary instillations.

THE PHILADELPHIA POLYCLINIC.

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PHILADELPHIA, AUGUST 14, 1897

THE STATE OF THE KNEE-JERKS IN CASES OF DIABETES MELLITUS.

CONCERNING the precise nature of diabetes mellitus definite knowledge is yet wanting. What relation, if any, the disorder bears to so-called diabetes insipidus is also undetermined. It may further be a fair question for discussion whether or not a distinction is to be made between saccharine diabetes, with its well-known train of constitutional phenomena, and simple glycosuria, with little or no other evidence of derangement of function. Finally the thought arises whether the constitutional manifestations of diabetes mellitus may not be present in individual cases and pursue the usual clinical course of that disease in the absence of sugar from the urine.

Such knowledge as we at present possess points to the conclusion that diabetes mellitus represents a derangement of bodily metabolism arising, perhaps, from a variety of causative influences, nervous, vascular, organic, toxic, alimentary, digestive, functional. In consequence of such morbid state it may be conceived that there results, in addition to the presence of sugar in the urine and the profound nutritive disturbances characteristic of the disease, also a condition of general

intoxication, as manifested especially by symptoms of inflammatory and degenerative processes in the spinal cord and the peripheral nerves on the one hand and of coma upon the other. In some cases the lesions noted have been demonstrated histologically. In others the most careful investigation has failed to disclose any morbid alteration in the nervous system. These results are quite in accord with other facts related to the morbid action of various toxic agents of both organic and inorganic nature, whether generated within the body or introduced from without.

Studies of the knee-jerks in cases of diabetes mellitus by different observers have shown this reaction to be absent in a considerable though varying proportion. In an analysis of fifty cases, made several years ago by Williamson (*Medical Chronicle*, Nov., 1892) the knee-jerks were absent in 50 per cent. Previous observers had made the percentage between 20 and 40. In a later study by Grube (*Neurologisches Centralblatt*, 1893, No. 22), covering 131 cases, the knee-jerks were found absent in only 7.6 per cent., while in a subsequent communication (*Deutsche medicinische Wochenschrift*, June 6, 1896), including additional cases, the percentage is given as 13.5.

To explain the wide variations in the results obtained by different observers Williamson (*Lancet*, July 17, 1897, p. 138) undertook the study of a second series of cases, with results that were practically the same as those obtained in the first investigation. Among 50 cases of diabetes mellitus it was found that the knee jerk was absent on both sides in 24, present on both sides in 23 and present on one side and absent on the other in three. The observations were made with special care, the skin over the patellar tendon being well exposed and being struck directly, without the intervention of any clothing. When the reflex could not be in-

duced spontaneously, reinforcement was availed of. In a total of 100 cases examined the knee-jerk was found absent on both sides in 49, present on both sides in 45 and absent on one side and present on the other in 6. In one case in which the knee-jerk was at first present examination after an interval of eighteen months disclosed its absence.

The disparity in the results recorded by different observers as to the frequency with which diabetes mellitus is associated with absence of the knee-jerks is attributed to the varying character and severity of the cases, the stage of the disease at which the observation is made, and the age of the patient. The disease is usually more severe in hospital cases than in those seen in private practice and in the former it has commonly reached a more advanced stage than in the latter. Many of the hospital patients are poor, hard-working persons, surrounded by unfavorable hygienic conditions. It is also further well known that diabetes mellitus is a more serious disease in young than in old persons. In correspondence with this fact is the observation that the knee-jerks were absent in 76.9 per cent. of cases of diabetes in patients under the age of thirty years and in but 40.9 per cent. of those in patients over thirty. It appears that the knee-jerks are more likely to be wanting late than early in the course of the disease. In the majority of the cases investigated by Williamson they were found to be absent during diabetic coma. Thus among 21 cases presenting this complication the knee-jerks could not be elicited in 18. Generally they were absent for a long period in advance of the onset of the coma. In one case they were present the day before but disappeared with the onset of the coma.

While the foregoing facts cannot be considered as establishing the proposition that the presence or absence of the knee-jerks in a case of diabetes is a reliable prognostic in-

dex, it will be admitted that the behavior of the patellar tendon reaction will indicate the relation existing between the intoxication present and the susceptibility of the patient.

A. A. E.

HON. WILLIAM F. STEWART ON THE POLYCLINIC DISPENSARY.

IN support of the appropriation of \$25,000 for maintenance to the *Philadelphia Polyclinic Hospital*, which the friends of the Hospital will be glad to learn has received the approval of the Governor, Hon. William F. Stewart, the senior member in continuous service of the House of Representatives of Pennsylvania, and Chairman of the Committee on Appropriations, is reported to have said, that "the institution is modest in its request for aid from the State. It asks from the State but one dollar, to six dollars contributed from private sources, while, in some other cases, the proportionate State aid asked for is actually reversed. As to the worthiness of the Hospital, I will say that I have visited it unexpectedly at all hours; and before nine o'clock in the morning, and until after seven at night, its benches are filled with people asking and receiving medical aid; not impostors, who ought to pay for services received, but the real poor, the suffering—those deserving of humane consideration. Its signs say, "Medical advice free TO THE POOR ONLY, and I can add, that all who come there, of whatever nationality, creed, or color, are treated exactly alike; all with consideration, kindness, humanity, and the best skill of the attendants."

We thank Mr. Stewart for his kind words, and can promise the best efforts of trustees, faculty and staff, to continue to deserve the regard and support of the benevolent and the discriminating.

Editorial Note

The Dispensary Abuse in St. Louis.—An interesting and important work now engages

the attention of several of our enterprising and lively cotemporaries published in St. Louis, that city of extremes in medicine, at whose society meetings the upright and cultivated physician sits side by side with him whose career illustrates all that physicians and gentlemen should avoid; whence medical journals of the highest and lowest types issue; wherein medical colleges and nostrum makers do flourish.

There have been established in that city numerous so-called dispensaries, some connected with well known hospitals and colleges, others having no such connection, which extensively solicit patronage from the public at a small charge per month or year. Connected directly and indirectly, innocently and otherwise, with these "fake" dispensaries have been some men hitherto highly respected by the profession in general. The abuse having been commented on in the journals, an investigating committee was appointed by the St. Louis Medical Society, and the report of that committee makes the basis of some very lively reading in the *Medical Fortnightly*, the *Tri-State Medical Journal*, and the *American Journal of Surgery and Gynecology*. One of the most interesting of the reported devices to rake in the nimble shilling is that displayed in a card hung up in the waiting room of a college dispensary, and containing the following announcement in English and German:

ALL PATIENTS

desiring to be treated **AT ONCE**

**CAN BE ACCOMMODATED
BY SECURING**

SPECIAL TICKETS

FROM
DR. . . .

Price, 25 cents a Week

Concerning this the Committee truly said: "So long as 25 cents is paid by the one for medicines and an extra quarter by the other for precedence, the thriving nuisance will continue."

We wish success to those who have undertaken the "great triple rôle" of Hercules and the rivers Alpheus and Peneus.

S. S. C.

Current Literature

REPORT ON OBSTETRICS.

By E. P. DAVIS, M.D., and W. H. WELLS, M.D.

The Value of Sterilized Milk.—Barton (*British Medical Journal*, January, 1897.) The author in a careful investigation of the subject arrives at the following conclusions: (1) Completely sterilized milk, if administered without any fresh milk, will undoubtedly, sooner or later, produce scurvy. (2) Milk that is raised to the boiling point, or better, to within two degrees of the boiling point, and maintained there for from five to ten minutes, is comparatively sterilized and will never produce scurvy, and is almost free from pathogenic organisms. (3) Completely sterilized milk, if administered at once in perfectly clean bottles, spoons or cups, can be relied upon as being free from any pathogenic micro-organisms. (4) The heating of milk alters very little, if at all, its nourishing qualities. (5) All kinds of sterilized milk, if free from added chemicals, can become foul as quickly, if not more quickly, than ordinary fresh milk. (6) All sterilized milk that is put into hermetically sealed vessels, and which can keep fresh in them for many days, will produce scurvy unless some fresh food is administered daily. (7) Milk that is boiled directly over a fire will undoubtedly cause constipation. If the milk be placed in a vessel containing water, and the water be brought to the boiling point, its antiscorbutic properties are not lost, and it does not cause constipation.

Precocious Maturity.—C. W. Townsend (*Boston Medical and Surgical Journal*, March, 1897, p. 232). All cases are divided into four classes: (1) Genital hemorrhages of the newborn. (2) Hemorrhages due to tumors of the genital organs. (3)

Precocious menstruation. (4) **Precocious maturity.** The genital hemorrhages of the newborn have nothing in common with menstruation, but are due to some local catarrhal condition, or to pelvic congestion. Certain tumors may give rise to uterine hemorrhage at irregular intervals, and to premature development of the genital organs, with hypertrophy of the breast. In precocious menstruation the flow was usually regular, lasted from one to five days, was accompanied by moulins and persisted for a variable time. It exerted no influence, however, on the general health. All the cases of precocious maturity evidenced themselves, in one way or the other, at birth. He reports two cases of this latter condition, the first, an infant weighing nine pounds when born, cut the first tooth at four months. The breasts commenced enlarging at three months of age, she menstruated at six months, the flow continued four days; she is now one year of age and has menstruated regularly since. The other case weighed fourteen pounds at birth, the breasts were unduly developed, and there was some hair on the pubes. Menstruation began at the ninth month and has continued regularly since. The external genitalia corresponded in development to a girl of seven years of age.

Selection

NEWSPAPER NOTORIETY THROUGH REPORT OF CASES.

It might surprise some of the more orthodox of the medical profession if, by chance, they were to catch a glimpse of the voluminous scrap book in the editor's possession, containing newspaper clippings of the last ten years, exploiting rare cases, and wonderful operations, with fulsome praises (and sometimes a likeness) of the operator and physician thrown in. Every prominent surgeon and physician in the city has his place in this scrap-book gallery of celebrated cases and cures. The clippings alone concerning one man and his wonderful cases would extend, if placed together, more than a mile. All are members of the Academy of Medicine, American Medical Association, also of numerous renowned special society organizations. Such titles greet our eyes in looking over this interesting collection as: "Heart Throbs laid bare;" "Thrilling Dr. ———'s experience during the war;" "No more hump-backs;" "At the top stands Dr. ———, in his specialty;" "His Brain laid bare;" "His throat closing;" "Total Blindness coming on;" "An eyeball slowly hardening;" "The remarkable operation of a young man suffering from a badly burned eye;" "A Capital operation, Dr. ———

— handles the knife for two hours and fifteen minutes;" "The Surgeon's Knife, extraordinary operation, removal of a cancer-eaten larynx from a woman;" "Doomed to Death;" "He was so hurt by chasement, he became blind;" "The eye tattooed, from a pearly white to a rich brown hue," etc., etc., ad nauseam.—*Clinical Chronicle* (Cincinnati), May, 1897.

New Publications

CLINICAL LESSONS IN NERVOUS DISEASES.

By S. Weir Mitchell, M.D., LL.D., Edin., 8vo, pp. 305. Philadelphia and New York: Lea Bros. & Co. 1897.

In science, as in literature, Dr. Mitchell's place is unique. What one finds in these *Clinical Lessons* is not a mere statement of clinical facts or a marshalling of scientific data that any learned neurologist could have written, but they have an instructiveness all their own; a personality, a point of view, which gives the student more than could be gained from the most learned and logical elaboration of the facts of pathology or semiology. We are in the presence of a great teacher, familiar with many facts of mind and nerve action that go far beyond present scientific data, and that can only be set forth in the graphic, illustrative, colloquial, but yet elevated style of these lessons.

One is impressed by the fact that there is capable of manifestation in medicine an intuitive grasp of fundamental relations, an insight of genius, and that the author of these lessons displays such intuition and insight in the highest degree. The charm of the language adds to the pleasure with which the book is read. There is a good index. The publishers have done their part fittingly, both in printing and illustration. S. S. C.

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THE PHILADELPHIA POLYCLINIC

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AUGUST 21, 1897

OPHTHALMIC CASES.—ABSTRACTS OF CLINICAL LECTURES DELIVERED IN THE JEFFERSON MEDICAL COLLEGE HOSPITAL.

BY G. E. DE SCHWEINITZ, M.D.

Professor of Ophthalmology in the Jefferson Medical College and in the Philadelphia Polyclinic.

GENTLEMEN:—The series of cases present this afternoon for your consideration, illustrates several important points in ophthalmic practice and therapeutics.

CASE I. *Recurrent Abducens Palsy.*—Intermittent or recurrent paralysis of the external ocular muscles is, comparatively speaking, a rare affection, about fifty cases having been recorded in medical literature. Usually, the muscle affected is the oculo-motor, but in several instances, for example those recorded by Nieden, Charcot, Holmes, Spicer, and J. A. Ormerod, the abducens has been involved.

The patient before you, a girl about six years of age, appeared at the clinic a few days ago, with paralysis of the right external rectus muscle, and even to-day, as she walks across the clinic floor, the characteristic objective symptoms of this palsy are evident, namely, convergent strabismus and a peculiar carriage of the head, the face being turned to the right, that is, to the side of the affected muscle, the patient having learned that if she holds her head in this position, she is least troubled by the homonymous double images. The history of the case is the following:

When one year of age, the child was attacked with an illness characterized by fever, nausea, vomiting, severe headache, and paralysis of the right external rectus. Complete recovery followed. When she was two years of age, the attack recurred, and precisely the same symptoms which have been described, were evident. Again there was complete recovery. Four weeks before she presented herself for treatment in the dispensary, a

third attack supervened, from which, as you see, recovery has not yet occurred.

This peculiar palsy, especially as it is related to the oculo-motor nerve, has been thoroughly studied by a number of observers, excellent analytic collections of the cases having been made by Darquier, in France, and Philip Coombs Knapp in our own country. The former observer finds that the disease attacks the female sex more frequently than the male—nineteen times in twenty-seven observations; but Knapp finds the two sexes affected about equally, the left nerve being more commonly involved than the right. The disease generally begins at an early period of life—from the second month to the fifth year—although it may begin later, and in rare instances develops even in old age. A concomitant symptom may be facial paralysis, and in some cases there have been recurring attacks affecting several cranial nerves. In four autopsies on cases of recurrent paralysis of the oculo-motor nerve with which I am acquainted, inflammatory thickening of the nerve was found in one case, a tuberculous mass pressing on the nerve in another, a fibro-chondroma separating without destroying the nerve-fibers in a third, and a fibroma in the course of the nerve and connected with the dura mater in a fourth. I do not know of an autopsy in a case of recurrent abducens palsy; but from analogy

we may reason that a lesion, similar to those found in the relapsing third nerve palsies, is active. For example, the present case could well be explained by a patch of pachymeningitis, which has been absorbed after the first two attacks, and part of which still remains in this, the third attack. As Knapp puts it, "the most tenable hypothesis is that these recurrent paralyses are due to some vascular change, inflammatory or edematous, in a focal lesion involving the root of the nerve."

With the exception of the paralysis that has been described and which is so evident, the patient before you has no ocular lesion. The fundus is normal, and the pupillary reactions intact. The treatment has been ascending doses of potassium iodid and mercuric chlorid. Until to-day there has been no change, but now the paretic muscle is beginning to regain its functions, and the eye can be rotated several degrees past the median line. I have no doubt that complete recovery will take place.

Sometimes the lesion in these cases is progressive, and finally so affects the nerve that its conducting power is destroyed and there is permanent and total paralysis. This was illustrated in a case which I studied in this clinic two years ago, and in which the oculomotor nerve of the right side was involved. The disease began at one and one-half years of age, with complete right oculo-motor palsy. The branch supplying the levator recovered; the rest of the branches remained paralyzed. From the time of the original attack until the patient's twenty-ninth year, there were numerous crises, with typical migrainal symptoms, always resulting in recurrence of the ptosis. Finally, a violent attack occurred, the ptosis recurred but never disappeared; in other words, the final result was permanent complete oculo-motor palsy.

CASE II. Complete Staphyloma of the Cornea; Mules's Operation; Extrusion of the Glass Ball Beginning on the Eighth Day.—As you are well aware, Mules's operation, or the evisceration of the contents of the globe and the insertion of a glass ball into the scleral cup in order to

form a movable stump for an artificial eye, has, in recent times, come much into vogue as a surgical procedure. It is an operation to be commended in many cases, and when successful, yields a stump far better than the one which results after ordinary enucleation, or even after evisceration without the insertion of an artificial vitreous. One of the accidents which happens to all operators who perform this operation, is the occasional extrusion of the glass ball—an accident which the present case illustrates. The history is as follows:

The patient, a girl aged 14 years, presented herself for treatment on account of a large, unsightly staphyloma of the left eye, which had resulted from recurring attacks of keratitis beginning in early childhood. The patient is a typically scrofulous subject, and, in addition to her other disabilities, suffers from extensive tuberculous adenitis of the neck. Mules's operation was performed in the ordinary manner by evacuating the scleral contents, carefully stopping all hemorrhage, inserting a glass ball, stitching the sclera over it with catgut sutures, and the conjunctiva with silk sutures. Absolutely no reaction occurred, and the patient was allowed to be up and around on the seventh day. On the morning of the eighth day after the operation, a slight edema of the conjunctiva was noticed, which rapidly subsided under the application of iced compresses. The following day, slight gaping of the wound was evident, and at one point the glass ball could be seen. This gaping continued, and gradually the artificial vitreous was extruded. It remained half protruding through the scleral opening for a number of days, an attempt to restitch the sclera over it having been unsuccessful, which yielded a very excellent movable stump, much better than one which would have followed an enucleation, although not so good as after a typically successful Mules's operation.

This case is instructive from two points of view. In the first place, it shows the importance of being perfectly sure of the quality of the catgut which is employed to stitch the sclera. In the present instance, I believe

that the accident was due to too rapid absorption of the sutures. In the second place, it illustrates the harmlessness of the accident, because the patient is far better off than if an enucleation had been performed, inasmuch as the stump, which now is the same as if a simple evisceration had been primarily the operation, will permit much better movements of the artificial eye than if it rested in an empty socket. This is the first time this accident has occurred in my experience, which, while not a large one, has been sufficiently great to give me confidence in this operation in selected cases.

CASE III. *Bilateral Kerato-iritis following Epidemic Influenza; Subconjunctival Injections of Deci-Normal Salt Solution.*—A married woman, aged 44, was taken ill with grip about ten weeks ago, and during the attack, or perhaps immediately following it, was seized with severe neuralgia in the supra-orbital region and soon after with iritis of each eye. For some days, she received no treatment, or, at most, very unsuitable domestic medication. When seen by Dr. Brobst, he at once recognized the serious nature of the inflammation, namely, kerato-iritis with extensive posterior synechia, and instituted proper treatment. The patient, however, could not be satisfactorily cared for in her own home, and, therefore, Dr. Brobst brought her to the hospital. On her admission, thirteen days ago, I found intense kerato-iritis of both eyes, most marked upon the right side. The lids were edematous, the cornea steamy, the pupils occluded with inflammatory exudate and the irides bound to the capsules of the lens by firm adhesions. Vision of the right eye was doubtful light perception, and of the left eye light perception.

The following treatment was at once ordered: Free leeching from each temple, a saline purge, inunctions of mercury, and a drop of a solution of scopolamin hydrobromate, two grains to the ounce, to be instilled in each conjunctival sac every four hours. This mydriatic was employed instead of atropin because it was found that on each instillation of the latter drug the photophobia and lachrymation were increased. As you well know atropin irritation of the con-

junctiva is not uncommon, and under these circumstances the mydriatic which causes the irritation must be suspended or replaced with another one. The great importance of maintaining mydriasis suggested the trial of scopolamin, with the happiest results. The improvement began at once, and now, although there is still marked injection and some swelling of the lids and increased lachrymation, the patient is able, for a moment at least, to open her eyes and permit you to inspect them.

I bring her before you to-day for the purpose of showing you the method of making subconjunctival injections. These injections occasionally act with marvelous efficiency in cases of iritis. Originally, you will remember, they were composed of mercuric chlorid, or some similar germicide. Recent investigations, however, and the experience of this clinic, have demonstrated that subconjunctival injections of physiologic salt solution are followed by results quite as valuable as those secured by the germicides, and, moreover, with less discomfort to the patient. These subconjunctival injections probably promote absorption of inflammatory products and open up the lymph paths which have been blocked by exudates. The method of giving the injection is very simple. A properly sterilized hypodermic syringe is charged with the solution (chemically, a *deci normal* solution of sodium chlorid), and five or six minims injected beneath the conjunctiva in the neighborhood of the cornea. There forms, as you observe, a large bleb, which gradually subsides under the influence of gentle massage through the closed lid.

It has been my experience that cases of iritis following epidemic influenza are always severe in character. Usually the ciliary body is extensively involved, and unless the case is properly recognized and promptly treated, a state of affairs illustrated by the case before you speedily arises. Three points are worthy of emphasis: The value of sco-

polamin as a substitute for atropin when the latter drug causes irritation of the conjunctival cul-de-sac; the importance of mercurial inunctions in the treatment of iritis, even when this disease is not of specific origin, on account of their antiplastic effect; and the occasional value, in conjunction with other remedies, of subconjunctival injections of physiologic salt solution.¹

CASE IV.—*Hypertrophic Blepharitis and Ulcerated Keratitis Treated with Formaldehyde.* The next patient, a man about 25 years age, presented himself during the latter part of the winter at the regular Friday clinic for relief from corneal ulceration. He had

¹The patient remained under treatment for a month, when she was returned to the care of her physician with the eyes perfectly white and quiet, the pupil of the right eye being somewhat irregular on account of old inflammatory adhesions which could not be broken, but the pupil of the left eye perfectly circular; vision, without correction, $\frac{10}{125}$. Continued treatment will no doubt further improve the vision. This result, considering the desperate nature of the case, is very remarkable, and to the injections of physiologic salt solution a large measure of credit must be given, inasmuch as the rapid improvement immediately followed their use. About half a dozen injections were given.

typical hypertrophic blepharitis, the *lippitudo* of the older writers, and in one eye a sloughing corneal ulcer of so serious a nature that he was advised at once to come into the Hospital. This he declined to do. After the eye had been cocaineized, the ulcer, having been outlined with fluorescein, was penciled with a solution of mercuric chlorid, 1-2000. The patient was ordered a lotion of formaldehyde water (40 per cent.), 1-2000, to be used freely every three or four hours, and was told to report as frequently as possible at the dispensary. He did not appear for some weeks, but when he came again we were startled by the improvement in his eye,—an improvement which has continued ever since. The credit must be given entirely to the formaldehyde, because, so far as I am aware, he has had no other treatment, and I present him now as a case of healed ulcerated keratitis simply to illustrate the very great value of this drug in the treatment not only of purulent inflammations of the conjunctiva, but as an active antiseptic and healing agent in the management of corneal ulcers. So far as the recent experience of this clinic is concerned, it is much more efficient than mercuric chlorid.

HYSTERIA IN EARLY LIFE.

BY AUGUSTUS A. ESHNER, M.D.

Professor of Clinical Medicine in the Philadelphia Polyclinic.

(Continued from p. 336, Vol. vi, No. 32.)

CASE V.—L. S., a colored girl, fourteen years old, complained of pain and soreness in the region of the stomach, which proved to be sensitive to the touch. She was unable to skip and jump and play like other children on account of the resulting distress. She suffered from nausea occasionally, unattended, however, with vomiting. There was complaint of a good deal of headache, although correcting glasses were worn. There were also present tic-like movements of the eyelids. The appetite was good, the tongue coated, the bowels constipated. Menstruation had appeared for the first time some nine months previously, and although a little irregular was unattended with pain. During the preceding month there had been suppression of urine for three or four days on two or three occasions. The urine itself was said to be clear and yellow. For two years the girl

was subject to what were described as faints, in which she did not fall, though she seemed to lose consciousness. In these she clenched her fists, and on one or two occasions she kicked, but she had no well-defined convulsion. The duration of the attacks was said to range from five to thirty minutes. At the conclusion of the attack the child seemed exhausted and she felt drowsy. There was at no time undue laughter or causeless weeping. The attacks recurred two or three times a week, at intervals of two or three weeks. There had been a free interval of as long as three months. No definite cause could be assigned for the attacks, though they were associated in the mind of the mother with the function of menstruation, to which, however, their frequency bore no apparent relation. Nothing also was known that seemed to be capable of inhibiting or aborting the attacks.

The child did fairly well at school, although apparently without ambition. There was no history of similar disease or of other form of nervous disorder in the family. The child had never suffered from any serious illness. She was considered sensitive. The knee-jerks were preserved, the patient jumping when the patellar tendon was struck and also in anticipation of a blow that was threatened but not struck. There was no gross sensory derangement. The heart displayed no abnormality. Dr. C. Y. White, by whom the patient was referred to Dr. Brinton's clinic at Howard Hospital, informed me that the patient was susceptible to hypnotism, but her failure to return prevented further study of the case.

Although I believe this case to be one of hysteria, it would appear to be the part of wisdom to withhold for the present a final diagnosis, in order that further study and perhaps personal observation of one of the attacks may yield evidence of such a character as will permit of an unequivocal and unreserved conclusion.

CASE VI.—R. F., a schoolgirl, fourteen years old, applied at the Orthopedic Hospital and Infirmary for Nervous Diseases, in the clinical service of Dr. S. Weir Mitchell, on July 3, 1896, with a history of having been frightened some eight months before by masqueraders. She fell to the ground and was unconscious for three hours. Her jaws were locked and she breathed heavily. After consciousness returned she went to sleep and remained in bed for several days on account of weakness. Some two months later, following a recitation, the girl lay down and became unconscious, and exhibited occasional twitches of the muscles. This attack lasted for three or four hours, and again several days were spent in bed. A third attack occurred after an interval of three months, without known cause. In this also the girl lay down, appeared unconscious, with her eyes open, and became rigid, but she did not bite her tongue. This attack continued for four or five days, during which the patient regained consciousness at times for periods of fifteen minutes.

At other times she appeared as if dead, being unable to see or talk. She took a little food, both liquid and solid. At the time of application the attacks recurred

almost weekly, lasting for three or four days at a time. The seizures were characterized by rigidity rather than active movement. After some of the earlier attacks there was inability to see, walk or talk. In some of the attacks the patient scratched herself, in some she pulled her hair, in some she kicked at those about her, and in some she made attempts to bite. In some she groaned a good deal, and in others the rectal and vesical contents were passed incontinently. Some of the attacks had occurred while the patient was alone, and some at night in bed. Between the attacks she was often dull, despondent and uneasy. At times, and especially following the attacks, she cried freely, and at times she laughed unduly. At times, further, she was unusually obstinate. Appetite, digestion and sleep were good, and the bowels were regular. The knee-jerks were preserved, and the pupils were full, equal, regular and reactive to light. There appeared to be general diminution of sensibility to pin-prick. Of the family history it need only be said that the mother, fifty-three years old, was a nervous invalid. The patient herself had had measles and whooping-cough in childhood, and from time to time suffered from bilious attacks. Menstruation appeared first at the age of thirteen and was irregular and painful. In the inter-menstrual period pain and swelling over the left ovarian region were complained of. Prior to the present illness there had never been a convulsion.

The hysterical nature of this case appears so obvious that further comment seems uncalled for.

CASE VII.—M. M., a schoolgirl, fourteen years old, applied at the Orthopedic Hospital and Infirmary for Nervous Diseases, on September 14, 1896, in the clinical service of Dr. Wharton Sinkler, on account of a coarse, rapid tremor of the right upper extremity, most pronounced in the hand, which had made its first appearance, without known cause, a month before, ceasing after a week and being resumed after an interval of three weeks. The movement was least marked during rest, and appeared to be increased on voluntary movement. It ceased during sleep. No derangement of sensibility and no limitation of the visual fields could be made out on superficial testing.

The dynamometric was 6 on the right and 23 on the left. The knee-jerks were feeble. The mother of the child was distinctly neurotic. The little patient herself had four attacks of chorea, two involving the right side and two the left, the first at the age of six years, and the last at the age of nine.

Under date of June 21, 1897, it is noted that the tremor has disappeared and reappeared thrice since the previous record. Both the girl and her mother consider her well at present, although on investigation it is found that the right hand is tremulous when extended, and inquiry reveals the fact that the shaking appears on excitement or after muscular activity, but only, or at least only in marked degree, in the right hand. There was no impairment of painful sensibility.

This case illustrates one of the forms of motor disturbance that may attend hysteria. In addition to simple tremor there may be choreic, or tic-like movements, or spasm or convulsion, or paralysis or paresis.

CASE VIII.—In conclusion, I wish to refer briefly to a rather remarkable case, in a girl of sixteen and a half years, in whom hysterical manifestations had been present for three years or more. The patient's mother was distinctly neurotic and the father suffered probably from some organic disorder of the brain. At the age of thirteen, after some opposition, the girl fell to the ground and became rigid and blue, and so remained for perhaps half an hour. Subsequently, she wept. In the following year, she felt certain vague sensations, with perhaps some perversion of consciousness, after witnessing an accident in the laundry in which she was at the time employed. Some months later she was found wandering about at a distance of some six miles from home, and another month later at a distance of eighteen miles or more. Menstruation set in shortly after this last escapade and recurred irregularly with pain. At about this time the girl began to have staring attacks, which were attended with convulsive movements. In the following year she did fairly well, but at the end of this time she again walked away from home, a distance of eighteen miles. About a month afterward, in conjunction with some sort of seizure from which her father suffered, the girl slept for four days, taking only liquid

but no solid food. About four months later, she went irresponsively to Washington, D.C., and passed through a varied experience. Of the details of these several expeditions, the girl maintained she had little or no knowledge and only faint and ill-defined recollection. She was readily susceptible to hypnotism, and while somnolent numerous facts and incidents connected with the journey to Washington and her sojourn there for several days were elicited. There was diminished sensibility to pin-prick upon face, hands and legs in irregular distribution. The pharyngeal reflex was preserved. From recent information, I learn that the girl was, a short time ago, found under suspicious circumstances in a not entirely reputable neighborhood, and she has been since sent to a reformatory institution. At the time the patient was under my observation, I could not convince myself of the entire reliability of her statements, and I am yet unable to decide to what extent she endeavored to practice simulation or deception. I was and am still inclined to believe that many of the symptoms have an hysterical basis, and I would be loath to deny that the several escapades were manifestations of a form of modified consciousness. In addition to the nervous disease in her own immediate family the fact that an aunt is a mesmerist and has exercised some influence over the patient is not without interest.

I have, in this communication, endeavored by the report of cases to supplement what others have already done in directing general professional attention to the liability of children to suffer from hysteria, and I would further emphasize the importance of its early recognition and intelligent treatment.

My thanks are due Drs. Mitchell, Sinkler, Lewis and Brinton for their kindness in permitting me to make use of their cases.

In the treatment of *ivy poisoning*, Dr. Cantrell usually advises the solution of *chlorinated soda* (Laborraque's solution) in strengths varying from 50 per cent. to 100, according to the severity of the attack, using the smaller percentage in the erythematous forms, and the stronger in the vesicular manifestation.

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MORPHINISM AND THE MEDICAL PROFESSION.

A DISTINGUISHED physician was heard to say that "doctors die of four things: starvation, whisky, opium and pneumonia." This was before the days of cocain, or that drug might have been included in the list of dangers to which the active physician is exposed. We do not know how far statistics will bear out the general impression as to the abuse of alcohol and opium by physicians, and believe they would show it to be erroneous; but at present we are concerned not so much with the formation of drug habits by physicians as with the formation of such habits, and in especial of the morphin habit, by patients first directed to the drug by their medical advisers.

It is well known that morphin users are not given to veracity, and one cannot therefore base an accusation upon their unsupported statements. Nevertheless we were recently much impressed by an expression used by a young woman, the victim of morphin, the drug having been first administered to her by her medical attendant for the relief of dysmenorrhea. He had given her paregoric, then morphin by mouth, then morphin

subcutaneously; all, of course, with due caution and only when in his judgment needed. The patient, as is so often the case, got to thinking she needed it when she did not. She called at her physician's office one day, professing to be in great pain, and asked him to give her an injection. His suspicion being aroused he declined to do so, and gave her a placebo. She returned the next day for the injection, but the physician being out of town, she called on a neighbor, an oculist, who referred her to another neighbor, a clinician. The latter, suspecting the story she told to be untrue, told her to go home and continue taking her medicine, and to send for him should anything further be needed in her attendant's absence. He heard nothing further of the patient until some two months later, when, in response to a call from an unfamiliar name and address, he visited his new patient, to find the young woman to whom he had declined to give morphin at his office. The attendant was again out of town, and had left word that he should be summoned. The girl frankly confessed that she had contracted the opium habit in defiance of her physician's advice, and stated that she had made arrangements to enter an institution for treatment; meanwhile, she needed advice as to a recent "cold." She said: "Doctor, I give the morphin to myself now; I've bought a syringe, I know how to use it. When I called on you, I was afraid to give myself the injection, and I tried to fool you. I went right to another doctor, and got it. And that's the way I got it all along, when Dr. X refused to give it to me. I just went to any doctor's office I was passing. You and two others are the only ones that refused. With most of them, it's as easy as getting soda water at a drug store."

We do not vouch for the truth of the girl's statement. As before remarked, morphin-users are not scrupulous as to exactitude in

their stories. Yet we fear that, in some cases at least, physicians fail to use the care that they should in giving morphin to strangers, on the mere profession of pain. In how far, moreover, physicians are responsible for the growing habit formed by patients, to whom they give injections for pain, for loss of sleep, for asthmatic attacks, or other apparently good reason, is a grave problem. Certain it is that, in many cases, the bold use of morphin gives relief and brings about recovery as nothing else can, and no bad habit results. Certain it is that, in other cases, one dose necessitates a second, this a third, and so on.

Whenever the drug is prescribed, the possibility of inducing a habit should be kept in mind, and its repetition be jealously watched. If due caution be thus observed, and the drug never given unless nothing else will serve the purpose, the physician need not feel responsible for untoward consequences; but, in the absence of such caution, the blame will lie at his door.

S. S. C.

Editorial Note

Tribromphenol Bismuth.—One of the latest antiseptics introduced into practice is *tribromphenol bismuth*, the composition of which is indicated by its name. It is a fine, odorless powder; somewhat greenish in color, which seems to be of decided utility as a sedative and to control suppuration. Upon raw surfaces and upon sensitive mucous membranes it is sometimes irritating at first, but this soon passes over. It is said to be the long-sought "perfect substitute" for iodoform. Our limited experience commends it as of service in that direction. In one case of antral disease, its local use entirely controlled a putrefactive process giving rise to foul odor, and resistant to other measures.

S. S. C.

In the Clinics

Under the Editorial Charge of DR. W. OAKLEY HERMANCE.

IN cases of *exophthalmic* goiter, functional heart murmurs are common. Sometimes, as in a case presented to the class in Dr. S. Solis-Cohen's clinic, organic heart lesion is found; in this case mitral stenosis.

* *

DR. CANTRELL said that in young children affected with the *heat* of summer, the eruption was more likely to assume pustular and furuncular forms than the small papules usually seen in *miliaria*, and consequently, if one should not examine carefully, mistakes might easily be made.

* *

IN the treatment of the *acute gastro-intestinal catarrh* of the summer, attended with nausea, vomiting, looseness of bowels, tormina and tenesmus, Dr. Eshner has observed good results from the use of the following formula:

Extract of hematoxylon 2 drams.
Aromatic sulfuric acid 2 fluidrams.
Spirit of chloroform 6 fluidrams.
Camphorated tincture of opium,
Compound tincture of cardamom,
of each 1 fluidounce.
Mix.

Dose: A teaspoonful after each bowel movement.

* *

Constipation, accompanying *acne*, is in many cases admirably overcome by the "Mistura ferri acida" of the Hospital pharmacopeia composed approximately as follows:

Magnesium sulfate 1 ounce.
Dry ferrous sulfate 20 grains.
Diluted sulfuric acid 1 fluidounce.
Infusion of quassia 4 fluidounces.

Mix.

Take one tablespoonful in a tumbler of water before breakfast.

A localized *gangrene of the skin*, particularly of the lower extremity of adults, should always be ground for suspicion of *diabetes mellitus*. This occasionally appears in isolated areas before the more advanced stages, *i.e.*, sloughing of the fingers or toes, and prompt recognition and treatment may greatly ameliorate the condition.

* *

In speaking of *hip disease*, Dr. Young proposed a *new procedure for diagnosis*: Puncture of the hip joint, with an aseptic syringe, and a microscopic examination of the fluid evacuated. For this purpose a two-part glass syringe, with a sterilized needle, will be the best instrument, and a puncture can be made in the line of Barker's incision, over the anterior part of the joint below, and in a line with the anterior superior spinous process of the ilium.

Selection

PROVIDENCE DISPENSARY.

THE dispensary abuse is being met in a Rhode Island institution in a manner worthy of general attention and imitation. The basis of the plan is to make known to all applicants for service that they are recipients of charity and to a great extent. This of itself is enough to considerably reduce the number who ask for aid, while it is not believed that it adds any embarrassment to the really worthy who need the assistance offered by the dispensary service. There is a list of pertinent questions put to applicants and a form of statement for such to sign, but in emergencies, accidents and sudden illness these are waived, the dispensary management properly preferring to take the risk of error on the side of the sufferer.

Summarizing this gratifying result of the trial, it appears that the attendance upon the dispensary has been lessened over 4000 new cases per year. If one-quarter of these be allowed to be unworthy, the plan adopted by the hospital has weeded from the ranks of hospital pauperism over forty-one per cent. of unworthy applicants. It is a matter of peculiar significance, as to the rejected applications, that 184 of them were taxed in the city of Providence for aggregate property possessions amounting to \$538,380, an average property representation of \$2927, and it seems clear that under such discriminating regulations as those now enforced at the Rhode Island Hospital the class of people who frequent charitable clinics because they can get free treatment and who think it a bit of shrewdness to thus beat the profession will in a large

degree be debarred from further attendance. Those who seek such advice because they do not know to whom to go, yet who are able and willing to pay a moderate fee are, by such a plan, without offence, referred to some physician, and another large class of habitual attendants is done away with, lessening the work of the dispensary and increasing that of the profession. Finally, the worthy poor are in no sense prevented from obtaining aid.—*The New England Druggist*, August, 1897.

Current Literature

Alcohol Topically in the Treatment of Morbid Growths.—Since 1872, Dr. O. Hasse, of Nordhausen, Germany, has been quietly testing the therapeutic effect of injections of *alcohol* in *carcinomatous growths*, publishing his summarized results last year. (*Therapeut. Wochenschrift*, No. 41, 1896.) He reasoned as Dr. Karl Schwalbe did as a rational basis for using alcohol in goiter, angioma and other growths, that if alcoholism will cause the formation of new connective tissue in the liver with atrophy of the parenchyma, lymphatics and blood-vessels, the direct injection of alcohol into tumors ought to do the same. Hasse reasoned further that the girdling of a tumor with a zone of alcohol would result in new formation of connective tissue, which would construct or obliterate afferent and efferent vessels causing atrophy of the tumor. Dr. Edwin J. Kuh (*Med. Rec.*, April 17, 1897), of Chicago, reports a case of cancer of the nasopharynx where this method seems to have been followed by a cure. There was no doubt as to diagnosis, for the growth was removed and proved to be epithelial cancer. It returned promptly. Erysipelas-prodigiosus toxins were injected unfiltered, those finally used being obtained from Dr. Coley (Mr. Buxton), of New York. What has so frequently happened in the hands of others happened here. The usual febrile reaction followed after each injection and after ten treatments fully two-thirds of the growth had disappeared. Then there was no further decrease, but in a few days, and in spite of the continued injections, the growth increased steadily. A piece of the tumor excised for examination showed the same malignant characteristics as at first. Toxins were discontinued and alcohol injections were begun, beginning with three minims of absolute al-

cohol (more could not be tolerated on account of the pain) and increasing to thirty minims. A reduction in size began after the seventh injection, and after the eleventh but few remnants of the growth remained. After a dozen more injections the needle would not penetrate into tissues capable of retaining the alcohol. Four months after beginning the alcohol treatment the pharynx showed no trace of the growth either on inspection or palpation. If further trial shall show that in the general run of cases the alcohol treatment for cancer is only another will o' the wisp, we have the satisfaction that the treatment is likely to do no harm, at least.—*Cleveland Med. Gazette*, July, 1897.

New Publications

GENITO-URINARY AND VENEREAL DISEASES.

By J. William White, M.D., and Edward Martin, M.D. Philadelphia: J. B. Lippincott Company. 1897.

This large text-book presents the subjects contained under its title as they are known to-day. It embraces all the various diseases and injuries included in the field of Genito-Urinary Surgery, and a full presentation of the Venereal Diseases.

The first chapter deals with Diseases and Injuries of the Penis, and goes well over the ground. Diseases and Injuries of the Urethra receive remarkably full and satisfactory treatment, the descriptions being excellent, and the impression made by the results derived from bacteriologic investigation upon pathology and therapeutics alike, shows clearly in the several chapters devoted to their discussion. The chapter on Stricture of the Urethra goes fully into all details, and is very practical.

Syphilis is discussed in several chapters, made interesting by the accurate and thorough manner in which they are written. They are rich in practical information, and reflect clearly the teaching of the foremost syphilographers. Injuries and Diseases of the Bladder receive very full consideration, and the lines of treatment are sound and clearly defined.

Next following is a useful chapter on Examination of the Urine, which is thoroughly abreast of the times. Next are included in

a very good chapter Cystitis, Vesical Tuberculosis, and Vesical Fistula, the discussion of which leaves nothing to be desired. Calculus of the Bladder, always an interesting subject, is disposed of in a thoroughly satisfactory manner, and the views expressed as to choice of operation are sound and explicit. The succeeding chapters on Cystoscopy and Vesical Tumors, and on Diseases and Injuries of the Ureters faithfully present to the reader all that is known in this part of the field, which modern methods and ingenious instruments have made so interesting and important.

In the discussion of Injuries and Diseases of the Kidneys nothing has been omitted, and the reader who consults this part of the book will not be disappointed. A good account is given, in the next chapter, of Injuries and Diseases of the Scrotum and Testicles, and then are taken up Injuries and Diseases of the Spermatic Cord and Seminal Vesicles. The important subjects of Injuries and Diseases of the Prostate receive their just share of consideration. At this time much interest is centered in the treatment of enlarged prostate in view of the operative procedures of castration, and ligature or excision of the vas deferens for its relief. A full statement of the claims of these operations is made.

Sexual Weakness and Sterility are the subjects next disposed of, and the work is concluded with a chapter on Psychopathia Sexualis, in which, in a compact way, are given good descriptions of the various forms of sexual perversion.

Of the work as a whole, we unhesitatingly say that there is no question that it is destined to assume a position in the first rank. It is well written, and a handsome product of the printer's art. The illustrations are abundant, and in the selection of those borrowed from other writers, the authors have exercised good judgment.

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THE PHILADELPHIA POLYCLINIC

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PARALYTIC CHOREA (CHOREA MOLLIS) WITH THE REPORT OF A CASE.

BY WILLIAM G. SPILLER, M.D.

Instructor in Neurology in the Philadelphia Polyclinic, etc.

THE paralytic form of chorea was well described by Todd in the year 1849. He stated that "when the choreic convulsion had affected one side, the paralysis will likewise affect the same side; it will be *hemiplegic*, and will resemble very closely hemiplegia from diseased brain." Occasionally the paralysis may precede the choreic movements and the diagnostic difficulties may be considerable, but Todd says that in these cases there is a "peculiar thrust of the tongue."¹

Osler also speaks of the difficulty in forming a diagnosis in some of these cases. He describes quite fully the paralytic form of chorea and gives a number of examples of the affection.²

It may seem useless, therefore, to report a case of paralytic chorea, and yet Charcot in his lectures at the Salpêtrière in 1888-1889 made the statement that paralysis was not recognized as a sign of chorea in the way it ought to be. While it is not possible to describe paralysis in chorea as a sign hitherto unknown, it is, perhaps, not venturing too much to say that the words of Charcot uttered eight or nine years ago still have force, and that the occurrence of paralysis in chorea is not universally recognized.³

Charcot described an interesting case. A

child was brought into his clinic who had the ordinary choreic movements in the face, neck, trunk and upper limbs, but was completely paralyzed in the lower limbs. Choreic movements had previously been observed in the lower extremities. There was no disturbance of sensation, the electric reactions were not altered, and there was no fever.

The first case of paralytic chorea which Charcot observed was in 1879. His experience led him to believe that this paralysis, even when complete, always terminates favorably after a brief period.

Ollive⁴ has written a thesis on paralytic chorea. Oppenheim⁵ in speaking of this subject says that paralysis is not a sign of chorea, but that paresis or pseudoparesis may be found in certain cases. Such a case as the one reported by Charcot is more than one of paresis. Sinkler⁶ alludes to the affection.

It is not the intention of the writer to review all the literature on this subject; there is no doubt that other references could be given, but sufficient has been written as a justification for the publication of the following case, which is one of paretic chorea rather than paralytic, and therefore not as uncommon as the latter form. It may be called a *forme fruste* (abortive form) of the affection. It is, perhaps, well to avoid the

¹ Todd: *The London Medical Gazette*, New Series, vol. viii, p. 663.

² Osler: *On Chorea and Choreiform Affections*, p. 31.

³ Charcot: *Leçons du Mardi à la Salpêtrière*, 1888-1889, p. 37.

⁴ Ollive: *Des Paralysies chez les Choréiques*, quoted by Charcot.

⁵ Oppenheim: *Lehrbuch der Nervenkrankheiten*, p. 794.

⁶ Sinkler: *A Text-book on Nervous Diseases*, Edited by F. X. Dercum, M.D., p. 238.

use of foreign words when English ones will do as well, but *forme fruste* is so freely used in both French and German literature for a disease with imperfectly marked symptoms, and conveys such definite meaning, that it may well be employed in English.

E. H., 10 years of age, female, was brought to the clinic for nervous diseases, of the Polyclinic Hospital, June 3, 1897. The mother of the child stated that about a month previously she had noticed involuntary movements of the right upper limb, and, at nearly the same time, of the right lower limb. She could not be positive in regard to the condition of the limbs of the left side.

Status prasens.—The child has choreic movements of the upper limbs, though possibly a little more violent on the left side. The choreic movements in the lower limbs and face are very slight. The right arm and hand are not used voluntarily, but are

moved on command. The grasp of the right hand is very weak; that of the left is normal. The power of raising the right lower limb against the pressure of the examiner's hand is considerably less than that of the left, *i. e.*, the child has paresis of the right upper and lower limbs, though she is not paralyzed, and can move these limbs when told to do so. The mother states that the child has been growing weaker every day. The patellar reflexes are present, but are difficult to obtain. There is a slight systolic murmur heard at the apex, pulmonic and aortic cartilages, but there is no accentuation of the second pulmonic sound. Sensation is normal.

In view of the usual termination of choreic paralysis, the mother was assured that the paresis would probably not be of long duration. The child was put on proper diet, her mode of life was regulated, and Fowler's solution was given in ascending doses. Improvement was rapid, and within a few weeks the paresis and choreic movements had disappeared.

THE COMPLICATIONS OF SCARLATINA.

BY J. MADISON TAYLOR, A.B., M.D.

Professor of Diseases of Children in the Philadelphia Polyclinic, etc.

THE most prominent complications of scarlatina are observed in the throat. There is almost always present, as a constant factor, an erythematous blush, somewhat punctate, over the mucous membrane and hard palate, and upon the swollen tonsils are often seen small membranous-looking exudates, which are easily wiped off. When this symptom is more severe the appearances resemble diphtheria quite closely, so much so that many yet regard this as a combination of the two diseases. Bacteriologic studies, however, show that the angina of scarlatina is due to the streptococcus, and only very rarely to the Loeffler bacillus (pseudo diphtheria). Late in the disease, after the subsidence of the primary fever, true diphtheria may occur.

Should this membranous condition, from whatever cause, become severe, the local

dangers are from extension along the mucous membrane of the naso-pharynx, eustachian tube and middle ear. Swallowing is made difficult and painful; the breath is fetid, irritating discharges emanate from the nose and throat, respiration is impeded, and the larynx is thus so narrowed by obstructing membranes as to imperil life directly. Along with this the glands of the neck are almost always invaded, and a dense cellulitis is thus set up, often extending from ear to ear. Constitutional symptoms, too, are then severe, owing to streptococcus toxemia, suppuration in the glands, pneumonia and nephritis. In the very worst cases gangrene may result, causing extensive loss of tissue, or with a profound increase of the aforesaid symptoms, the membranes grow darker and dirtier looking; sloughing takes place, often extensively, involving the

bloodvessels, and fatal hemorrhage may result.

The constitutional features in malignant cases are increments of intensity in all symptoms, profound asthenia, cachexia, and little or no tendency to repair local tissue loss.

The lymph nodes are swollen in all cases, accompanied by throat trouble, which may remain as merely an acute inflammation, or proceed to suppuration. A cellulitis of the neck may accompany lymphadenitis, especially toward the end of the first week. This should be relieved early by free incision, or it may extend to the deep tissues and involve the bloodvessels, hence hemorrhages.

The ears, so commonly involved in scarlatina, are affected by extension along the eustachian tube, of the forms of inflammation in the throat. It occurs in younger children and varies with the character of the epidemic. In some severe cases this feature is, fortunately, rare. Otitis arises at the height of the disease or during convalescence. There may be pain, extra fever and recognizable deafness; or it may be accompanied by no special subjective symptom, and only evidence pyemic states or meningitis. The exceptional rise in fever which usually accompanies this, falls promptly when the drum ruptures.

The treatment is heat, preferably dry, by means of hot water bag, hot salt, bran, brick or soapstone; the child's head being laid thereon, a thin pillow intervening. Prolonged poulticing encourages suppuration, and hence should not be practiced. A small container, like a glove-finger, or rubber "finger-cap," filled with salt and gently placed in the ear, gives great comfort. One should never drop oil or laudanum in the ear. Bloodletting by leeches is useful in those not too young or too weak. After these means are used opium may be tried cautiously for the relief of pain. Should pain continue or increase, and the temperature

grow or remain high, or cerebral symptoms be added, operation is called for. It is not a difficult thing to make a puncture into the ear-drum by any careful physician when the indications are thus plainly evidenced. This will promptly relieve tension and pain, and generally let out a little blood; thus the formation of pus is possibly prevented and much suffering avoided. Later operation may be demanded to let out pus and to prevent extension of disease to the bony parts, but this is better done by a skilled aurist. When the drum is incised, or ruptured, the discharge should be carefully and persistently cleansed away. This is best done with a soft rubber ear-syringe and a warm (80° or 85° F.) wash of saturated solution of boric acid, normal salt solution (a teaspoonful to the pint), or mercury bichlorid 1-4000. If the discharge be very abundant, cleansing should be repeated every two or three hours, or at least several times a day. No cotton covering and no plugging should be permitted. To dislodge accumulations of pus, solution of hydrogen dioxid is useful, alone or diluted. This agent must, however, be used with caution, as it may force the pus into new channels. The nose, too, should be cleansed regularly, by atomizer in an older child, or by pipette in infants, using Dobell's or Seiler's or other alkaline, antiseptic solution, warmed.

The nervous system is rarely affected in scarlatina other than as shown by the convulsions, and the vomiting of onset, and the usual restlessness. Meningitis may follow severe otitis by extension. The digestive organs are disturbed, as in other febrile processes. The vomiting of the onset is rather an evidence of systemic poisoning than a local disorder, or it may be a cerebral symptom. Vomiting, late in the disease, may evidence uremia. The tongue exhibits a peculiar coating which clears off in a characteristic manner, giving rise to the so-called

strawberry appearance. In typical cases, there is usually rapid rise in temperature (103° – 105°) even in the mildest cases above 100° , and along with this there is marked increase in the force and frequency of the pulse (from 120 to 150).

The tongue of scarlatina has been described as typically like a strawberry; that of measles like a raspberry. It is difficult to find such simple pictures, however, and the statement does not help materially in diagnosis. The tongue is commonly thickly coated with a white fur which may show the fungiform papillæ through. Soon this clears off, and the surface may become glazed, then, the fungiform papillæ persisting in prominent view, there is a resemblance to the strawberry.

The urine is generally lessened in amount and of higher specific gravity and deeper color, frequently showing traces of albumin. As a rule, all these symptoms subside after three or five days, and the child becomes bright and active once more, unless some complication impairs its vigor. It is imperative to keep it in bed, nevertheless, as exposure now is exceedingly perilous, and it is at just such times that future disaster is begun.

The kidneys are, next to the throat, most commonly affected, in the milder cases only

temporarily as evidenced by the appearance of febrile albuminuria, which is, according to Delafield, an acute degeneration of the kidneys, due to direct irritation of the epithelium of the tubules by the toxins eliminated by the kidneys.

The microscope shows a granular degeneration and death of the epithelium of the tubules. It is the appearance known as "cloudy swelling." This condition entirely clears up upon the recovery of the patient, and calls for no further treatment than a continuance of fluid diet.

Certain variations are oftentimes noted in the symptoms. The rash is sometimes nodular or papular, causing an appearance like "goose flesh," or again vesicular. It may come and go intermittently; urticaria sometimes co-exists, or minute hemorrhages take place on the surface, causing an appearance of "blackness" or rather a deep purple; this is common in malignant cases, but not always. Congestive states or inflammatory disturbances of internal organs have a tendency to modify the character of the rash, lessening it as a rule; hence, the importance of keeping the skin abundantly active during the entire course of the disease, and using prompt counter-irritation by means of hot baths, etc.

NOTES ON SUGAR TESTS.

BY AMELIA A. DRANGA, M.D.

Limits of delicacy of the bismuth-test.—Comparative tests were made as follows: measured amounts of an aqueous solution containing 0.5 grams of pure dextrose in 200 c.c. were made up to 10 c.c., 2 c.c. sodium hydroxid solution (approximately decinormal) and a pinch of pure bismuth oxynitrate added; each mixture was boiled one minute. The following are the results:

10 c.c. dextrose solution, deep black precipitate.

5 c.c. dextrose solution, black precipitate.

2.5 c.c. dextrose solution, black precipitate.

1.25 c.c. dextrose solution, black precipitate.

1 c.c. dextrose solution, faint black precipitate.

0.5 c.c. dextrose solution, gray precipitate.

The strongest solution corresponds to 0.25 per cent. of sugar and is seen to give a marked reaction. The limit of delicacy was

reached when the solution contained .025—i.e. $\frac{1}{40}$ per cent. of sugar.

Nylander's modification.—All the textbooks on clinical chemistry refer to Nylander's solution, but it seems to be more familiar in the literature than in the laboratory. The solution was prepared as follows: 2 grams of pure bismuth oxynitrate were triturated with 4 grams of pure sodium potassium tartrate and about 8 grams of sodium hydroxid dissolved in 50 c.c. of water. The bismuth oxynitrate rapidly dissolved with the production of a slightly turbid, brownish liquid, which was made up to 100 c.c. by the addition of water. On standing, it deposited a small amount of brown flocculent material, the supernatant liquid becoming clear and colorless.

Successive portions, about 2.5 c.c. each, of this solution were boiled with water alone, urea solution, and water containing chloroform. A small amount of white precipitate was produced in each case, but no blackening. With a few drops of formalin solution, a dense black precipitate and a metallic mirror on the sides of the test-tube were produced. The delicacy of the reagent was determined by comparative experiments similar to those detailed above. The limit of reaction was one-eighth of one per cent. of sugar, and with this, several minutes' boiling was required and the result was a brown liquid without a precipitate. From this it appears that the solution is less delicate than the original form of the test and not any more convenient.

It has been found that glycerol may be substituted for the sodium potassium tartrate as in the preparation of Fehling's solution. The modified form seems to be the more satisfactory. Experiments with it will be reported later.

To Facilitate Intubation of the Larynx.

—Dr. C. Sihler in *The Cleveland Medical Gazette*, July, 1897, says: "For a long time it was a mystery to me why there was such a difference in the difficulty of inserting the tube in different patients, and I attributed it to the difference in the configuration of the structures. Finally, however, it became clear to me that the important thing would be to have the head held well forward—in fact so much forward that one will perform

the operation on one's knee. There is the greatest difference in facility of execution between performing the operation in a standing position and where one is resting on the knee—at least in my own experience. Very skilful men, perhaps, have no trouble in performing this operation. I have to confess that I do not look upon it as such an easy one, and as there may be others in the same predicament I give to these the brotherly advice: *Operate while on your knee.* One can readily understand why the conditions are so much more favorable. The vertebral column rather forms a concavity anteriorly when the head is held forward and almost downward, so that the larynx is brought thus backward and comes within more easy reach; and I think the direction in which we can now push the instrument will be easier to find than when standing."

Selection

THE "DISPENSARY ABUSE," FROM ANOTHER STANDPOINT.

The Post-Graduate has always conceded that there is a certain proportion of abuse of these charities in the very nature of things, but that this abuse is not a very crying one. The attending physicians and surgeons, who are, all of them, if not in pressing need of professional fees, at least desirous of obtaining them, and sufficiently alert to prevent many well-to-do people from securing their services for nothing, will treat only the deserving poor.

There is a difference of standard as to what constitutes ability to pay a doctor. The poor young man, just out of the medical college, with no possessions, and very little income in sight, is apt to look upon a nurse, a governess, or schoolteacher, or clerk, who may, from the nature of their calling, wear good clothing, but who may have just enough money to keep body and soul decently together, as persons able to pay for medical advice. Just so a thrifty mechanic, who, by industrious habits and temperance, is able to comfortably clothe and feed his family, but who never has fifty dollars in the Savings Bank, may be considered by the same authority as well able to pay a medical fee.

And so are these people sometimes, if the fee be moderate and be not too frequently required, but if the head of the family becomes ill, or his or her eyes give out, or the mother is stricken with fever, the children dependent on the care of friends or relatives, or if the governess, or the clerk lose their positions, if even for a month, the whole situation is changed, and they become objects, not of aid thrown to them as to hungry animals, but of the beneficent care of the profession, which does not make the securing of a large increase the first object of existence.—*The Post-Graduate*, August, 1897.

In the Clinics

Under the Editorial Charge of DR. W. OAKLEY HERMANCE.

DR. RIESMAN reports good results from the use of *strontium bromid* in cases of rheumatoid arthritis treated in Dr. Cohen's clinic.

* *

DR. YOUNG called attention recently to the "*art poses*" as a cause of lateral curvature. A young artist's model, from standing long periods on the right foot, developed a functional left dorsal scoliosis. This has been greatly improved by a change of posture and gymnastic exercises. This tendency to pose figures upon one limb, is well shown in many celebrated statues and paintings, and a familiar example is to be found in the last issue of United States currency. On the one-dollar notes, a youth stands on his right foot, with the left limb flexed; on the two-dollar note, an infant stands on the left foot, with the right limb advanced, etc. This may be spoken of as the "attitude of fatigue," the most frequent cause of scoliosis. The statues of William Penn, Stephen Girard and others, in the city, are posed in this manner.

* *

Eczema of the palm will be found as a rule to be due to occupation causing habitual immersion of the hands in water. Salicylic acid in doses of grains 10 to 20 to one half ounce of ointment base will be found the remedy *par excellence* for these cases. The hands should never be washed with water, but when it is desired to remove the ointment it should be done by means of olive oil or liquid petrolatum. Salicylic acid plaster in strengths of 5 to 10 to 20 per cent., as required, will overcome the objection to the use of ointment in this region.

* *

THE necessity of frequent examination of the urine during pregnancy cannot be too urgently advised. Not only should the urine

be examined for albumin, but the proportion of solids, and especially of urea, should be carefully estimated. It is of little consequence what test is used for this purpose; any one of the many methods for the estimation of urea will give good results, if regularly and carefully used. From the fifth to the eighth month, weekly examinations are advised. During this time, an average of 1.4 per cent. of urea may be considered a fair average in a healthy, non-toxic woman.

* *

IN the gradual *substitution of starchy food for milk* in the feeding of infants, Dr. Wells does not consider it necessary to use an artificial food. Starch can be introduced by adding to the milk a small quantity of oat or barley jelly. These can be made as follows (Roberts' formula):

About 4 ounces of coarse oatmeal are allowed to soak in a quart of cold water for 12 hours. The mixture is then boiled down so as to make a pint, and is strained through a fine cloth while hot. Keep this jelly on ice until used.

Barley jelly can be made by taking 4 ounces of barley flour, and preparing in the same manner as for oat jelly.

About equal parts of jelly and milk should be used. If laboratory milk is employed, the quantity of sugar and fat should be slightly reduced, as the starch in these jellies (particularly oat jelly) adds much to the heat-producing qualities of the food.

* *

Enlarged and indurated cervical glands of children, showing a tendency to abscesses and furuncles are very frequently due to *pediculosis capitis*. Local treatment in these cases will be found useless unless the parasites are first removed. For this purpose the favorite prescription in Dr. Cantrell's clinic is:

Extract of staphisagria.	2 fluidrams.
Acetic acid diluted enough to make . .	6 fluidounces.
Apply locally.	Mix.

THE PHILADELPHIA POLYCLINIC

Brief, practical, original articles, and news of general professional interest are solicited for publication in this journal. Contributions accepted will be paid for on publication, or, if desired, and so indicated on the manuscript, 250 reprints will be furnished in lieu of other compensation.

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PHILADELPHIA, AUGUST 28, 1897

TYPHOID FEVER WITHOUT INTESTINAL INVOLVEMENT.

The progress of bacteriologic science has done much to clarify our notions concerning disease-processes in general, and to enlarge our special pathologic conceptions. We have learned, among other things, that infectious disorders are, as a rule, local processes primarily, although they may become generalized as a consequence of dissemination of the causative micro-organisms through the blood stream. Such phenomena of constitutional disturbance as may be present are readily explicable by the secondary intoxication that takes place as a result of bacterial activity.

While pathogenic bacteria occasion, as a rule, specific infections, it is recognized that these may assume various forms, in accordance with the seat of localization and other influences of less obvious nature. Thus, the pneumococcus may give rise not only to pneumonia, but to meningitis as well; the tubercle-bacillus may find lodgment and unfold its activities not only in the lungs, but also in glands, bone, serous and synovial membranes, etc.; the streptococcus pyogenes may cause not only erysipelas, but it

may give rise to suppuration as well. By analogy we are thus able to understand how, for instance, typhoid infection may take place without involvement of the bowel. Cases have been reported¹ in which, although there was swelling of Peyer's patches, there was no ulceration; but recently a case has been reported² in which Peyer's patches appeared not to be involved at all.

The case last referred to occurred in the service of Dr. Cheadle, in a boy, three years old, of whom a brother and a sister had been for some time already under treatment for typhoid fever. The child came under observation on about the tenth day after the symptoms, with a history of diarrhea, vomiting and debility. His appearance was heavy and apathetic, the lips being dry, cracked and bleeding. On the abdomen were three rose-colored papules, which faded on pressure; and on the back there were four or five more. The abdomen was swollen and tympanitic, and the liver was enlarged, but the spleen did not appear to be increased in size. The heart showed signs of slight enfeeblement. The pulmonary percussion-resonance was preserved, although air entered the lungs but poorly and a few moist rales and musical rhonchi were heard posteriorly. The urine presented no abnormality. Diarrhea was not marked, the stools being yellowish-brown in color and soapy in consistence.

On the third day subsultus tendinum and marked carphology were observed. Two days later the catarrhal sounds heard over the chest were slightly louder. Profuse diarrhea now set in. On the eleventh day epistaxis and vomiting occurred. The abdomen became less distended and moved freely with respiration. On the sixteenth day the breath-sounds heard over the chest were obscured by the sibilant rhonchi and

¹ Phillips: *Lancet*, January 31, 1891; *Semaine Médicale*, March 1890.

² *Lancet*, July 31, 1897, p. 254.

mucous rales. In the left axilla the breathing was bronchial in character. The area of deep cardiac percussion-dulness was a little increased to the left, and the first sound at the apex was weakened. On the seventeenth day the patient passed into a comatose state, and there was slight dyspnea. Curds were present in the stools, and vomiting took place. On the twenty-third day the first sound of the heart at the apex was duplicated, and the second sound was accentuated, with a resulting cantering rhythm. On the twenty third day the patient was nauseated after taking food. The pulse became feeble and irregular and death ensued. On the twelfth day the serum-test yielded a positive reaction, loss of motility of most of the bacilli, and marked clump formation taking place on the addition of blood to a diluted culture. On the seventeenth day the typhoid bacillus was separated from the urine. A positive reaction to the serum-test was yielded a second time on the twenty-third day.

Upon the post-mortem examination no ulceration of the intestine was visible, and Peyer's patches appeared to be normal. There was a slight indentation of the mucous membrane close to the ileo cecal valve, but this was probably accidental, as microscopic examination showed nothing abnormal. The colon also was normal. The spleen was normal in size and appearance. It was opened aseptically and cultivations on agar, gelatin and potato were made. The culture-tubes after inoculation showed typical colonies of the typhoid bacillus. Many sections of the spleen were examined, but no typhoid bacilli could be found. The mesenteric glands and the liver were enlarged. Before the heart was opened blood was collected from the right auricle in Pasteur pipets, and the serum-test was made with a culture of bacilli which had been separated from the patient's urine. Loss of motility in most of

the bacilli and clump-formation were observed. The left ventricle of the heart was slightly dilated. The bronchi contained mucus and there was some lobular collapse of the lung-tissue.

The case thus briefly related sustains the position of those who maintain that typhoid fever is not a disease of the intestine *per se*, although the infection may generally be viewed as primarily a local one, and although the intestine is most commonly the original and most conspicuous seat of the disease-process.

A. A. E.

CORRESPONDENCE.

New Medical Terms.

To the Editor of the PHILADELPHIA POLYCLINIC:—I have a few medical terms that I have caught up that should not go unrecorded. I send them to you:

"Vermifuge appendix." "Epidemic of morphia." "Nervous prosperity."

Truly yours,

O. H. A.

BOOKS RECEIVED.

ANNUAL REPORT OF THE BOARD OF REGENTS OF THE SMITHSONIAN INSTITUTION. Showing the Operations, Receipts and Expenditures to July, 1895. Washington: Government Printing Office. 1896.

THE JOHNS HOPKINS HOSPITAL REPORTS. Vol. VI. Baltimore: The Johns Hopkins Press. 1897.

WRITE to the Secretary for the new announcement of the Philadelphia Polyclinic and College for Graduates in Medicine.



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Extracts from the Fifteenth Annual Announcement

OF THE

Philadelphia Polyclinic and College for Graduates in Medicine

GENERAL INFORMATION

The Philadelphia Polyclinic and College for Graduates in Medicine was organized in December, 1882, and opened for clinical work and teaching early in 1883. It has steadily extended its facilities and opportunities for practical work, until now it has entered upon its fifteenth year with a corps of fifty professors, lecturers and adjunct professors and thirty-one instructors, hospital and laboratory buildings of modern construction and fully equipped, and including a *Röntgen-Ray Department*, the work of which is unexcelled; while in addition to its own dispensary services aggregating 18,000 new cases per annum, the clinical advantages of nearly all the hospitals of Philadelphia may be utilized by its pupils. Although its classes continue to increase, it still makes a feature of offering the *direct personal instruction* and full opportunities for actual clinical work that have been so highly valued by its former pupils.

Thus the Polyclinic opens to all graduates in medicine its facilities for acquiring a practical acquaintance with the clinical aspects of disease and the diagnostic procedures and methods of treatment in general medicine and surgery that were formerly attainable only by those who held positions as resident physicians in the larger hospitals; and in the special branches, like gynecology and diseases of the eye, ear, nose and throat, the opportunities which it offers have never before been generally attainable, and are unsurpassed anywhere in this country or in Europe. The members of its limited classes *personally examine* cases of disease and employ the instruments of precision in diagnosis and treatment, participating in the actual work of the clinic and the laboratory.

Economy of Time.—Courses may begin at any date, and the hours for instruction in the various departments have been arranged with a view to enable the pupil, whether he takes a single branch or many, to make the fullest possible use of his time. The total amount of work offered is many times that which can be undertaken by any one person at one time; so that there is much room for choice to meet the needs of each as to time and subjects.

The **General Schedule** (pp. 16, 17) shows 110 hours of work daily at the Polyclinic itself, and the **Special Schedules** (pp. 18–22) aggregate many times this amount.

The Situation of the Hospital is central, almost equidistant from the University of Pennsylvania, the Jefferson Medical College, and the Medico-Chirurgical College—easily accessible from all directions, and near to such valuable special institutions as the Children's, Rush Consumption, Wills' Eye and Orthopedic Hospitals, and to the great Library and Mütter Museum of the College of Physicians.

On reaching the city, physicians should come directly to the Polyclinic, where information as to boarding places will be furnished. Board can be obtained from \$4.50 per week upwards. The Clerk will furnish applicants with a list of boarding houses.

FEES.

The following fees are for tickets issued during the period covered by the regular winter session, from October 1st to June 15th.

Tickets are generally issued for courses of six consecutive weeks. When the physician-pupil can attend but one day in the week, the period is extended

to three months. If for good cause a pupil is called home from his teaching, he is credited with the unexpired period, and this may be taken at any future time.

For the Clinical Courses, tickets are issued as desired—(1) for the teaching of any individual Professor; or, (2) for all the teaching in any one branch, as Medicine, Surgery, Ophthalmology, Gynecology, etc.; or, (3) for a combination of two or more branches, as General and Orthopedic Surgery, Diseases of the Chest and General Medicine, Eye, Ear, Nose and Throat, Obstetrics and Diseases of Children, etc.; or, (4) for all the Clinical Courses—a general ticket.

For the teaching of any one Professor, or for all the teaching in branches in which there is but one Professor, the fee is \$15.00. The fees for separate and combination tickets are shown in the following table:

FEEES FOR THE CLINICAL COURSES.

	For Six Weeks.	For Twelve Weeks.
Clinical Medicine [and Therapeutics] (any Professor)	\$15 00	\$25 00
Clinical Medicine [and Therapeutics] (all teachers)	25 00	45 00
Diseases of the Chest (either Professor)	15 00	25 00
Diseases of the Chest (all teachers)	25 00	45 00
Diseases of the Stomach	15 00	25 00
Clinical Medicine, Therapeutics, Diseases of the Chest and Diseases of the Stomach (all teachers)	40 00	70 00
Clinical Surgery (any Professor)	15 00	25 00
Surgery, General and Orthopedic (all Professors)	35 00	60 00
Diseases of the Rectum	15 00	25 00
Genito-Urinary Surgery (either Professor)	15 00	25 00
Genito-Urinary Surgery (all teachers)	35 00	60 00
Diseases of Women (any Professor)	15 00	25 00
Diseases of Women (all teachers)	35 00	60 00
Obstetrics	15 00	25 00
Diseases of Children	15 00	25 00
Obstetrics and Diseases of Children	25 00	45 00
Diseases of the Ear (either Professor)	15 00	25 00
Diseases of the Ear (entire teaching)	30 00	50 00
Diseases of the Eye (any Professor)	15 00	25 00
Diseases of the Eye (all teachers)	35 00	60 00
Diseases of the Throat and Nose (any Professor)	15 00	25 00
Diseases of the Throat and Nose (entire teaching)	35 00	60 00
Diseases of the Skin	15 00	25 00
Diseases of the Mind and Nervous System (either Professor)	15 00	25 00
Diseases of the Mind and Nervous System (all teaching)	25 00	45 00
Diseases of the Mind and Nervous System (one Professor), and Electro-Therapeutics	20 00	35 00
Electro-Therapeutics only	10 00	15 00
Defects of Speech	15 00	25 00

A General Ticket entitling the student to attend the entire work and instruction in all the clinical departments, as given in the general and special schedules, is issued for one week at \$20, for six weeks at \$90, for three months at \$150, and for one year at \$350. In all cases an extra fee is charged for any laboratory course. The Faculty would strongly urge those contemplating taking more than one course, to take a general ticket. After long experience it has been abundantly demonstrated that whether a pupil-physician has or has not predilection for the study of the specialties, the most economical and satisfactory plan is that on which the general ticket is issued. In this way he can at a minimum cost map out a day's full work in those fields that are most congenial to his tastes.

The Laboratory Courses are not included in the general ticket, and no reduction is made in fees for such courses as are given during the summer term.

FEEES FOR THE LABORATORY COURSES.

Anatomy	\$25 00
One "part" for Dissection	5 00
Operative Surgery on the Cadaver	30 00
Operative Gynecology	50 00
Fracture Dressing and Bandaging	15 00
Toxicology	15 00
Water Analysis (sanitary)	15 00
Urinary Analysis	10 00
Bacteriology	15 00
Pathology	15 00

Certificate and Fellowship.—A handsomely engraved certificate of attendance will be furnished for a fee of five dollars to pupils who have taken a course in any or all departments. Fellowship may be obtained by examination in accordance with the following provision of the By-Laws:

"Any pupil who has received the full course of instruction and passed a satisfactory examination in all departments shall, upon nomination by the Faculty, be elected by the Trustees a Fellow of the Philadelphia Polyclinic and College for Graduates in Medicine."

For additional information address,

MAX J. STERN, M.D., *Secretary*,
Philadelphia Polyclinic and College for Graduates in Medicine,
or
MR. WM. S. LEFFMAN, *Clerk*. Philadelphia, Pa.

DETAILS OF DEPARTMENTS.

SURGERY.

PROFESSORS.—JOHN B. ROBERTS, M.D.; LEWIS W. STEINBACH, M.D.;
THOMAS S. K. MORTON, M.D.; MAX J. STERN, M.D.

LECTURER.—HENRY R. WHARTON, M.D.

ADJUNCT PROFESSOR.—COLLIER L. BOWER, M.D.

ASSOCIATE.—ANNA M. FULLERTON, M.D.

INSTRUCTORS.—MORRIS B. MILLER, M.D.; JOHN H. GIBBON, M.D.

CLINICAL ASSISTANTS.—A. L. BARCUS, M.D.; MARIE B. WERNER, M.D.;
LUDWIG LOEB, M.D.; RICHARD WILSON, M.D.; M. W. FELL-
MAN, M.D.; A. L. MCKINLEY, M.D.; S. L. GANS, M.D.; ALFRED
F. ALLMAN, M.D.; M. A. NEUFELD, M.D.; M. STALLER, M.D.;
EDGAR SAVIDGE, M.D.

The Surgical Department utilizes the great mass of clinical material offering at the Polyclinic Hospital, and throws open to students the surgical wards of almost every large hospital in the city. Major operations are of almost daily occurrence in the Polyclinic, and a large major and minor accident service is incident to the new buildings being situated in a densely populated district hitherto unprovided with surgical facilities.

Demonstrative clinical instruction (see rosters) is given in the wards, dispensaries and operating-rooms of the Polyclinic, and by members of the Faculty, in the following hospitals:

Episcopal,	Pennsylvania,	Woman's,
Children's,	Philadelphia,	Orthopedic,
Jewish,	St. Agnes',	Howard,
Methodist	Jefferson,	Samaritan.

Pupils receive instruction in the diagnosis and operative treatment of surgical diseases and injuries, in surgical pathology, the use of instruments, and in the theory and practice of aseptic and antiseptic methods of wound-treatment. Two rooms for the preparation of sterilized materials have been built under the new amphitheater; these have been fitted with the most perfect appliances known to modern science, and theoretical and practical instruction is given in asepsis and antisepsis in a course of weekly lectures, delivered by Dr. Morris B. Miller. Pupils are also given opportunities to dress and treat large numbers of cases, and are allotted to assist at or perform operations in suitable cases.

The class is likewise thoroughly drilled in the application of bandages, splints, fracture apparatus, plaster bandages and surgical dressings in general.

In accordance with the progressive methods of the school, the Faculty has recently added the necessary apparatus for photographing by the Roentgen rays, and the direct visual examination of bone lesions with the Edison fluoroscope. Demonstrations will be given from time to time as suitable cases present themselves.

Notices of operations other than those during the regular surgical clinic hours, to be performed at the Polyclinic or elsewhere, are posted upon the bulletin-board. For further particulars of this service see special surgical roster.

OPERATIVE SURGERY ON THE CADAVER.

PROFESSOR.—MAX J. STERN, M.D.

The surgical laboratory is elaborate as a clinical theater and has a complete armamentarium. The pupil is not required to furnish any instruments. A course is given in general operative surgery, embracing ligations, amputations, resections, trephining, and all the usual operations, the pupil performing the various procedures upon the cadaver, after familiarizing himself with the anatomy of the parts involved, under the supervision of the professor. Another course is given in which attention is particularly devoted to operative measures on abdominal viscera. This course includes operations on the intestines, ovaries, uterus, stomach, kidneys, etc., and is intended for those who desire to engage in the intelligent pursuit of the associated specialties. The two courses may be combined in a general one.* Facilities for dissection will be afforded to those who desire to pursue anatomic studies.† It has also been an aim of the department to furnish the requisite facilities to practitioners for the rehearsal of new or special operations, and to give them opportunity to study complex anatomic regions under pleasing and comfortable environment.

DISEASES OF THE RECTUM.

PROFESSOR.—LEWIS H. ADLER, JR., M.D.

ADJUNCT PROFESSOR.—JOHN D. MOORE, M.D.

INSTRUCTOR.—PHILIP R. CLEAVER, M.D.

CLINICAL ASSISTANT.—ROLAND S. LINDSAY, M.D.

To the general practitioner, this course offers abundant opportunity for the daily study of the methods of examining, diagnosing and treating rectal diseases and in the use of the various instruments. Dr. Adler gives one clinical lecture weekly in the amphitheater, which is open to pupils taking the general course.

SURGICAL DISEASES OF CHILDREN.

LECTURER.—HENRY R. WHARTON, M.D.

Throughout the winter session lectures upon the surgical diseases of children will be given at the Children's Hospital (close to the Polyclinic), where Dr. Wharton will utilize the very large amount of clinical material afforded by that institution. Special instruction will be given on the subjects of tracheotomy and intubation.

ORTHOPEDIC SURGERY.

PROFESSORS.—H. AUGUSTUS WILSON, M.D.; THOMAS G. MORTON, M.D.; JAMES K. YOUNG, M.D.

ADJUNCT PROFESSOR.—J. TORRANCE RUGH, M.D.

INSTRUCTORS.—BERTHA LEWIS, M.D., HOWARD REED, M.D.

MECHANICIAN.—A. G. GEFVERT.

INSTRUCTOR IN MASSAGE AND SWEDISH MOVEMENTS.—JESSIE M. WARD.

Once a week Prof. Morton meets the class at the Orthopedic Hospital and Infirmary for Nervous Diseases, and in this rich field illustrates the operative and mechanical treatment of deformities.

At the Polyclinic, instruction is given by Prof. Wilson on Wednesdays, on Tuesdays, Thursdays and Saturdays by Prof. Young, and on Mondays and Fridays by Adj. Prof. Rugh.

The clinical lectures of Prof. Wilson, on Thursdays, at the Jefferson Hospital, may be attended by pupils of the Polyclinic.

The extensive collection of dried specimens, casts, etc., in the Mütter Museum of the College of Physicians, northeast corner Thirteenth and Locust Streets, is also utilized to illustrate the pathology of the affections under consideration.

The plan of instruction is by means of clinical demonstrations of dispensary

* For particulars as to the Special Course in operations upon the female pelvis only, see under the Department of Diseases of Women, p. 32.

† See also under Department of Anatomy, p. 35.

and ward cases, with special reference to spinal, hip and other joint diseases, club-foot, osseous malformations and other bodily deformities, both congenital and acquired. Each case is thoroughly and practically studied, and, so far as is consistent with the welfare of the patient, is personally examined and treated by the physician-pupils. The preparation and application of the plaster-of-paris bandage are features of this course.

The mechanician is in attendance to demonstrate the fitting and adjusting of mechanical appliances under the direction of the professors. Particular attention is paid to the demonstrations of simple, cheap and effective apparatus and methods to be substituted for the more complex and expensive appliances commonly used, with a view to enable the physician remote from the instrument makers of the large cities to make a simple mechanism that shall fulfil all the desired needs.

EYE DEPARTMENT.

PROFESSORS.—EDWARD JACKSON, M.D.; SAMUEL D. RISLEY, M.D.; GEORGE E. DE SCHWEINITZ, M.D.; HOWARD F. HANSELL, M.D.; THEODORE B. SCHNEIDEMAN, M.D.

ADJUNCT PROFESSORS.—JOHN T. CARPENTER, JR., M.D.; JAMES THORINGTON, M.D.; CLARENCE A. VEASEY, M.D.

INSTRUCTORS.—FLORENCE MAYO, M.D.; ARCHIBALD G. THOMSON, M.D.; E. W. STEVENS, M.D.; HELEN MURPHY, M.D.; WM. M. SWEET, M.D.

CLINICAL ASSISTANTS.—MARY GETTY, M.D.; FRANCES W. JANNEY, M.D.; JOHN B. TURNER, M.D.; WM. M. CAPP, M.D.; MARIA W. HAYDON, M.D.; MIRIAM M. BUTT, M.D.

This course offers the best facilities anywhere attainable for the practical study of ophthalmology. The pupil is able to spend the greater part of the day in actual clinical work, using the ophthalmoscope, test-lenses, etc. From two to four hours of instruction are given daily by the professors, the remainder of the work being under the supervision of skilled instructors.

DETAILS OF INSTRUCTION.

Services of Professors Jackson and Schneideman.

PROF. EDWARD JACKSON, PROF. T. B. SCHNEIDEMAN, DR. FLORENCE MAYO, Instructor. DR. JOHN B. TURNER, DR. MIRIAM M. BUTT, Clinical Assistants.

Prof. Jackson lectures at the Polyclinic on Tuesdays and Fridays at 9 A.M., and conducts the clinic at Wills' Eye Hospital on Tuesdays, Thursdays and Saturdays at 2 P.M.

Prof. Schneideman lectures and conducts the ophthalmic clinic at the Polyclinic on Mondays, Wednesdays, and Fridays at 4 P.M.

Systematic Course on Refraction.—The lectures by Professor Jackson include a systematic course on Refraction and the Theory and Use of the Ophthalmoscope; and the practical illustration of the subject goes on daily in the clinical service. Skiascopy, both with the plane and concave mirrors, is constantly employed in the clinics. The theory and use of the ophthalmometer are fully explained and illustrated. The best methods of applying the trial lenses and the significance of the data elicited by their use are carefully taught, and the student is given full opportunity to apply all these methods of diagnosis under the supervision of the professors and instructors.

The requirements and the methods for accurately fitting spectacle and eye-glass frames are carefully explained; and practically illustrated by Dr. Mays.

The facilities for practice with the ophthalmoscope are probably unequaled anywhere else, because of the general use of the mydriatics in the large number of refraction cases. The appearances presented in the fundus of the eye are pointed out, commented upon and farther illustrated by comparison with the best atlases of ophthalmoscopy.

Practice in the measurement of refraction with the ophthalmoscope is also afforded with the artificial eye. The common diseases of the anterior segment of the eye are given special attention, and amply illustrated in the clinics by Prof. Schneideman.

The course also includes the clinical anatomy of the eye, both macroscopic and microscopic; with demonstrations of its pathological anatomy and histology, illustrated by diagrams, specimens, photographs, and microscopic slides. The more common operations upon the eye and its appendages are also illustrated and explained in the clinical service.

Service of Prof. S. D. Risley.

PROF. S. D. RISLEY. DR. JOHN T. CARPENTER, JR., DR. JAMES THORINGTON, Adjunct Professors. DR. HELEN MURPHY, Instructor.

The teaching in Prof. Risley's service is classified, so that a systematic course of instruction in ophthalmology is given each six weeks.

Prof. Risley lectures at the Polyclinic on Thursdays at 4 P.M., and conducts the clinic at the Wills' Eye Hospital on Mondays, Wednesdays and Fridays at 2 P.M., and has charge of the 9 o'clock A.M. service daily at the Polyclinic conducted by Dr. Thorington and Dr. Murphy.

In the Thursday 4 P.M. lecture a careful didactic course is given on the diseases of the external tunics and the surgical affections of the eye, all of which find ample clinical illustration at the rich service at the Wills' Eye Hospital from 2 to 4 P.M., on Mondays, Wednesdays and Fridays, and at the daily service at the Polyclinic at 9 A.M.

Dr. John T. Carpenter, Jr., holds three conferences weekly, eighteen in all, at the Wills' Hospital, on the ophthalmoscopic diseases of the eye, where abundant opportunity is afforded for clinical demonstration and study.

Dr. James Thorington and Dr. Helen Murphy each hold six conferences weekly, thirty-six in all, at the 9 o'clock service at the Polyclinic, on the Anomalies of Refraction and Accommodation, and the Wills' Hospital service gives abundant additional opportunity for the study and correction of these errors by the pupils.

Careful attention is paid to the details of operations on the eye and its appendages; the ordering of glasses; the study of and operations for abnormalities of ocular balance; and the use of the ophthalmoscope and ophthalmometer. At least one evening in each course of six weeks is devoted to the study of the pathologic histology of the eye by Professors Risley and Randall. For this purpose both microscopic and macroscopic preparations of eyes with a known clinical history are employed and the lantern freely used as a means of illustration.

Service of Prof. G. E. de Schweinitz.

PROF. DE SCHWEINITZ, ADJ. PROF. VEASEY. DR. MARY GETTY, DR. FRANCES JANNEY, Clinical Assistants.

Operative Ophthalmology.—Professor de Schweinitz lectures at the Polyclinic on Saturdays at 4 P.M. On Tuesdays at 4 P.M., he gives a systematic course in operative eye surgery. The pupils perform the various operations upon pigs' eyes under his direct supervision. From November to January and May to August, inclusive, he holds a clinic at the Philadelphia Hospital on Mondays, Wednesdays and Fridays at 4 P.M. From January until April he gives a clinic at the Jefferson College Hospital on Fridays at 1 P.M., to which Polyclinic students are welcome.

The clinic at the Children's Hospital on Mondays and Fridays at 3 P.M., is open to pupils of the Polyclinic under Dr. Thomson's instruction.

Service of Prof. Howard F. Hansell.

PROF. HOWARD F. HANSELL. DR. WM. M. SWEET, Instructor. DR. WM. M. CAPP, DR. MARIA W. HAYDON, Clinical Assistants.

Professor Hansell gives clinical instruction three days in the week, at 12 o'clock. On the alternating days the clinic is in charge of Dr. Sweet, who will devote his teaching partly to the relation of the eye to general disease. Prof. Hansell gives systematic instruction on the functions of the ocular muscles, and the phenomena attending their anomalous action; he also devotes some time to oculo-neurology, discussing clinically those problems that stand midway between ophthalmology and neurology; in this latter work Prof. Hansell will be assisted by Dr. Reber. Pupils are invited to Prof. Hansell's clinical lectures at the Jefferson College Hospital, Fridays at 1 P.M.

THE PHILADELPHIA POLYCLINIC

VOL. VI—No. 36

SEPTEMBER 4, 1897

A CASE OF MENTAL DISEASE IN WHICH AMNESIC AGRAPHIA AND DISORDERS OF VISION WERE THE PROMINENT SYMPTOMS.

BY HOWARD F. HANSELL, A.M., M.D.

Professor of Diseases of the Eye in the Philadelphia Polyclinic, etc.

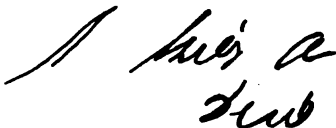
Mrs. W. W., aged 44, first came under my observation in 1885, complaining of accommodative asthenopia. A correction for hypermetropia and astigmatism ordered at that time has been worn with comfort until recently. She consulted me again September, 1896, with the intention of having the glasses changed. There was full acuity of vision for the distance and near point of eight inches. She complained that she could not see to read, write or sew more than a few moments consecutively. This statement I found to be strictly true, but the cause of the disability was not to be sought in the failure of accommodation but in the abolition of the power of correctly interpreting the words printed or written, of absorbing the ideas conveyed by them or of transferring their meaning to paper so as to be intelligible to others. Continued testing of reading or writing either letters or figures caused such mental confusion and annoyance that they must be desisted from, for as soon as the patient became aware of her incompetence to perform the task she refused to be persuaded to continue the effort. All objects in the room, familiar from everyday use were recognized at once and given their proper names and correct usages. More than a very few trials with familiar objects were met with the indignant demand "whether I thought she had lost her senses." The ocular examination was negative. Vision $\frac{20}{20}$; full range of accommodation for one of her age; external appearance normal; no muscular paralysis; pupils responsive to light and accommodation and of equal size; media clear; nerve, retina and choroid absolutely healthy; fields not con-

tracted and color perception good. There were no ataxic symptoms and no paralyses. In conversation as to her own health or other subjects no mental peculiarities were noted other than an indisposition to prolong the interview. Hearing was acute, questions were answered intelligently, speech was uninterrupted and in no way defective. The most interesting features of the case were the abortive efforts to read and write, presenting in these peculiarities a striking contrast with previous habits. Until six months ago her letters to her husband, who was frequently absent, were interesting, carefully worded and fluently written. Later they became quite unintelligible, not because they recounted unusual or impossible events but because the letters were unformed, the words intended to be formed, unknown, and the sentences unintelligible.

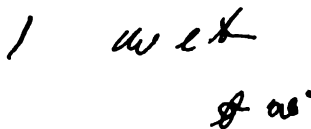
A truthful and graphic description of the points in the history of this case is best given in the words of a sister-in-law to whom I wrote for information. She answered: "The first evidence of Mrs. W.'s illness was in her letters. The writing was illegible, the thoughts incoherent and the words meaningless. The trouble increased rapidly, so that in a few months she could scarcely write an intelligible word." Another change from her old self is thus noted: "From talking almost incessantly she had lapsed into silence, never speaking unless directly addressed, and then answering hesitatingly as though afraid to trust herself. She was fully

aware of her inability to talk and complained, on being questioned, that she could not say what she wanted to, that the words were all wrong. Three months later she became careless in her dress, insensible of her surroundings, uninterested in her usual occupations and uncertain in her gait. Intending to walk straight forward she seemed to be projected always to the right, and in her few efforts to write, as will be seen from the illustrations, commenced in the middle or

right hand side of the page." At one time this may have been due to hemianopsia, but at the time of my examination hemianopsia was not present. "Books and pictures failed to interest her, although she appeared to enjoy hearing stories, adapted to children, read aloud. During this time she was listless and indifferent, but not unhappy or morbid. Later she signified her willingness to enter an asylum, but when admitted protested with great violence against her retention.



"This is a dull day."



"I went for a walk."

1 2 3 4 5 6
 1 2 3

The numbers 1 to 10.

1 2 3 4 5 6 7
 3 4 5 6

This shows her attempt at copying numbers.

a b c d e f
 1 2 3 4 5

Letters.

Her moods altered from violent to lachrymose. Throughout her illness she has retained her memory of trivial incidents of her early life, but happenings of to-day are forgotten to-morrow."

Hinshelwood's well-known case, ably reported in detail in the *Lancet*, London, Dec. 21, 1895, and five additional cases collected by him, are instances of a refinement of aphasia where the patients were utterly unable to read words, and while correctly naming individual letters could not associate them into words yet had no difficulty in reading figures. My case was not one of simple or pure aphasia or agraphia for letters or words, but a combination of both, imperfectly developed. The power to read printed or written language or figures was exhausted in a few moments, but was not totally abolished, and the still more difficult task of writing words or figures from dictation, where the function of the higher centers of speech and writing were not supported by that of the visual center resulted in nearly complete failures. The samples of writing from copy and dictation, here submitted, illustrate this point—one that has been previously noted by other observers.

Literature contains many reported cases of aphasia associated with agraphia. That

most similar to my own is recorded by Berlin (*Neurolog. Centralb.*, 1887), and named by him "dyslexia." The symptoms consist in an inability to read more than a few words without pausing to rest, then trying again, and so on, this without impairment of vision or actual alexia or painful sensations in the eye or head. The power to read is exhausted in a few moments. This may be considered a valuable sign in commencing organic cerebral disease. His six cases ultimately died, but the cerebral lesions were so variable in nature and location that they do not throw any light on the pathology of dyslexia. They are reported to have been found in the following locations: the third frontal convolution, part of the second and the adjacent motor gyri, at the posterior extremity of the fissure of Sylvius, the posterior part of the superior temporal gyrus and supra-marginal gyrus, and in other parts adjacent to but not involving the speech center.

In the above case the cause of the mental symptoms is probably a gradually advancing degeneration or softening of the intellectual centers, including those for the association of ideas, judgment, memory, speech and writing, located in the upper temporal convolutions of both sides of the cerebrum.

PATHOLOGY OF A HEALTH RESORT.

BY C. E. IDE, M.D., Buffalo, N.Y.

PREVENTIVE medicine includes within its ever-broadening scope the study of climato-therapy. Change of residence often brings about good results in the prevention and treatment of disease which can be obtained in no other manner. Yet health resorts, so-called, do not always prove to be unmixed blessings. The selection of a region for a summer's outing, for instance, requires the exercise of considerable judgment; and when the change is sought for the benefit of one out of

health, that rare discrimination and judgment should be brought into play, which we believe it our duty to exercise in applying other treatment. Not all regions are suitable for all people, and patients are often sent to places which are ill suited to their physical condition and calculated to aggravate rather than improve the ailments which they seek to benefit; or else, the proper region having been selected, they are not fully informed as to the mode of life—dress, diet, rest, etc.

—which they must follow amid the changed surroundings. A suitable region having been decided upon, some thought should be expended upon the environment and the means necessary to bring about a reasonably rapid acclimatization. The sooner it is understood that there are regions which must not be reached and explored and enjoyed by people in all states of physical vigor and health, the better it will be. The doctor's province lies in teaching, and if he is to have charge of the health of families he should be consulted with regard to change of residence as well as other matters; and, on the other hand, he should be prepared to give good advice with regard to it.

At this time I wish to write more particularly of a summer's experience in the Adirondacks, "Nature's Pleasure-ground and Sanatorium," to call attention to some conditions which seemed peculiar to a residence there, and to suggest means for their avoidance.

Health resorts prove to be anything but such in many cases, as for instance, when people plunge into them suddenly from the heated cities to find the temperature thirty or forty degrees lower than that which they left but a few hours before. Last summer, for instance, people came to Blue Mountain Lake from New York, leaving a temperature often of nearly one hundred degrees and arriving after sundown to find one of sixty. The trip generally occupies twenty four hours, but only the last thirty miles is in the cooler region, being traversed by stage coach. So the change of thirty or forty degrees is made within six hours. Tourists arrive clad in the same attire to which they were accustomed in the hot city. The result is that the entire surface of the body is suddenly chilled and various internal congestions set up, the seat of attack being governed by the point of least resistance, the trouble being generally located within the abdomen.

From the above we learn two lessons—first

that the journey should be made in easy stages by those who are not robust; second, that on the last morning of the trip, when the cooler region is to be entered, woolen underwear should be donned, even such as is worn in the winter at home. This can be modified later as one becomes acclimated, but while in that region the whole surface of the body should be covered by at least a thin layer of wool. Even the most robust often succumb, so this rule applies to all.

As usual, the drinking water played quite a large part in the production of annoying conditions. The lessened barometric pressure and the resulting lessening of blood tension seem to create a demand for more fluid within the bloodvessels. At any rate, all newcomers indulged to excess in the "delightfully pure drinking water" which was furnished. "Here at least we need have no fear of microbes." But there was generally a sequel.

I was unable to make any tests of the water, lacking suitable apparatus and reagents. The purity of the water was not so much doubted, for its source was on the side of the mountain, five or six hundred feet above the hotel. I know that the water source had not been examined during the spring, so there was a chance for contamination by decaying vegetable matter. I do not think that there was any possibility of contamination by animal matter, surely not by fecal or other discharges from human beings.

It was the mineral constituents of the water which were productive of harm. The water was "hard." It was clear and iridescent. There was always a whitish, iridescent film to be seen on the top of the water in the large supply tank, to which the water came through galvanized iron pipes from the side of the mountain. The water was always in motion within the pipes.

After considerable thought was expended upon the matter, the conclusion was reached

that the water contained excessive amounts of mineral acids. It was not the presence of such mineral matters as would produce catharsis alone, but an excessive irritation was produced. So excessive was this irritation that it acted almost like an infection, yet it yielded readily to treatment by alkalis. The water lacked the power of dissolving uric acid and assisting elimination. The stomach and bowel troubles were characterized by excessive acidity and fermentation with flatulence.

Another point to be noted is, that most people attempted to follow the same mode of life, amid the changed surroundings, as is followed at home; the lesson that this is impracticable often being learned at considerable cost. It was soon learned that the special region had a special diet provided for it by nature, and woe to him who attempted to live too artificially so near to her heart!

Instead of maintaining a table in keeping with the rustic and crude surroundings, French or Italian cooks prepared all sorts of deadly pastry, and it was a noticeable fact that to these entrées many turned the greater share of their attention. Pancakes furnished a prominent article of diet for many all through the summer. The ultra-American appetite has created a demand for such articles of diet there. When people are taught what they shall eat, with sufficient force and universality, there will be demand for food better suited to surroundings and real needs.

The feast of trout and venison which advertisements led one to anticipate, was not forthcoming. Avarice purchased fish outside, which was sent in barrels, because it was cheaper. It costs something to have men out catching trout and shooting deer; and hotels are run for the purpose of making money—*because people allow it to be so.*

When the public creates an absolute demand for proper food it will be supplied.

Overeating was a prominent factor in many cases of sickness. The changed surroundings, the cooler, bracing atmosphere, and the general exhilaration which they produced, induced people to unconsciously take more exercise than they were ordinarily accustomed to or prepared for. This was conducive to good appetite, and all confessed that when meal time came they "just gorged" themselves.

In contradistinction to this overeating among the guests, undereating or malfeeding was conducive to certain disorders among the servants. Many of the waitresses, for instance, were young women with tuberculous tendency, who were unable to pay for a summer's outing or for treatment at a sanatorium, so they had been advised by their physicians to obtain positions at one of the Adirondack hotels. But if those physicians could see the quarters in which these young women are obliged to sleep, and the food which they are forced to eat, and the long hours during which they work—5 A.M. to 9 P.M.,—I am sure that they would hardly send them there with any expectation of improvement. This work they do for three dollars a week, and when they fall ill their pay is stopped and they are forced to pay for the miserable food which is served to them.

Strangely enough there were cases of heat prostration. The cool air is so deceptive that when the hottest days come, with the direct rays of the sun pouring down in the early afternoon, the effect of the heat is not perceived until serious symptoms come on. Babies were affected by the heat and sudden changes in the weather just as they are in the cities, thus breaking the delusion that to repair to the mountains, is to escape from all the evils of the hot season. It was not that the temperature was high, even on the most troublesome days, but the sun's rays were just as powerful and direct.

(To be continued.)

THE PHILADELPHIA POLYCLINIC

Brief, practical, original articles, and news of general professional interest are solicited for publication in this journal. Contributions accepted will be paid for on publication, or, if desired, and so indicated on the manuscript, 250 reprints will be furnished in lieu of other compensation.

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PHILADELPHIA, SEPTEMBER 4, 1897

THE RESPONSIBILITY FOR ACCURATE DIAGNOSIS.

THE first requisite for the proper treatment of any sick person is an accurate diagnosis of his condition. It is true that there are some cases, which, in the present state of science, we must confess to be insusceptible of diagnosis during life, and there are others, which are so obscure that diagnosis is extremely difficult, and even remains doubtful to the last.

These cases are, however, exceptional, and the duty of the physician toward them is fulfilled by recognizing their exceptional character, seeking counsel, and making, with the aid of counsel, a probable diagnosis. This involves, too, it will be noted, a negating of many possibilities, so that while a complete diagnosis may not have been reached, intelligent progress toward it has been made.

Furthermore, there are many cases, in which, while the general class of disease may be recognized at first, time is required to develop the particularizing symptoms. In such cases, of course, the wise physician awaits the development before pronouncing his opinion.

Some physicians, however, through hurry or inattention, postpone an accurate diagnosis of the cases to which they are called, until a second visit, then to a third, or fourth, and may actually conduct a case to the end—to death or recovery—without having made a positive diagnosis. This is not a scientific postponement for further evidence, or the withholding of opinion, because of inherent difficulty or doubt, but sheer laziness; a disinclination to seek evidence and exert reason, which eventuates in atrophy of the discriminating faculties and utter inability to decide even in the easier cases.

One great advantage of study in a hospital or post-graduate college is, that the student is forced by the pressure of circumstances, the questions of his chief or teacher, the emulation of companions, to make a diagnosis in every case that comes before him. He must be able to defend his opinion with tenable reasons, and, whether he be correct or incorrect, each diagnosis made strengthens the habit of investigation and decision, and increases the knowledge of methods.

Often we have found that a pupil-physician who, at first, dreaded to give an opinion before the class, became, before his course was ended, an acute diagnostician, simply through being forced to exercise the knowledge he possessed.

The importance of arriving early at a correct diagnosis scarcely needs to be dwelt upon. To recognize lobar pneumonia in its early stages, often means to be able to prevent disastrous developments. The physician who knows that the pleurisy he has detected in a given case is but an incident of enteric fever, and not the sole disease, will surely manage his patient better than one who does not realize this fact. The eye symptoms of locomotor ataxia, the furunculosis of diabetes, the hoarseness of laryngeal paralysis due to aneurism, are common examples of symp-

toms that may be mistaken for diseases in the absence of complete investigation. Of the importance of the early recognition of tuberculosis, one cannot speak too strongly. Whether the local affection be pulmonary or arthritic, peritoneal or renal; whatever the organ that is affected, prompt diagnosis may mean life, delayed diagnosis is almost sure to mean death. If a case is accepted, sufficient time to examine the patient thoroughly and by every means known to science, must be taken; or the physician is morally responsible for any evil consequence of his neglect. If he do his best, and err notwithstanding, as all of us have done and may do again, at all events he *has* done his best, and no more can be required of him.

S. S. C.

In the Clinics

Under the Editorial Charge of DR. W. OAKLEY HERMANCE.

DR. HELLER finds that the addition of a small amount, say $\frac{1}{8}$ grain, of arsenous acid is of material aid in *preventing* the appearance of *drug eruptions*, as of the bromids, salicylates, iodids, etc.

* *

In a case of *acute gastro-intestinal catarrh* in a colored girl of twenty, presenting herself at the clinic of Dr. Eshner, relief was afforded by the administration every three hours of seven and a half grains each of bismuth salicylate and aromatic powder.

* *

Albinism, always an interesting anomaly, has been twice seen in Dr. Hansell's service in the past four weeks—once in a 4-year-old Russian child in whose ancestry no such trend could be shown; in the other instance Nature was certainly playing a prank, for the anomaly was met with in a 55-year-old negro, two of whose four children were also albinotic. The patient was almost a mulatto, and her hair was devoid of pigment.

According to some Southern ophthalmologists albinism is not such a rarity among the negrine population as their racial pigmentary tendencies would lead one to believe.

* *

DR. WELLS, in a recent discussion on *summer diarrhea in infants*, called attention to the necessity of instant removal of milk as an article of diet, should diarrhea and vomiting appear. To continue feeding an infant on milk under these conditions, is worse than foolish, and is adding fuel to a flame.

These infants should receive no food for from twelve to twenty-four hours, but they may be given a few drops of brandy in sterilized water. At the end of this time, a little freshly prepared beef-juce, panopepton or albumen water may be used every three or four hours, with benefit, and in forty-eight to seventy-two hours, if vomiting and diarrhea have entirely ceased, a mild formula, low in proteids and fats, may be tried, and, if no bad symptoms follow, may be repeated. Proper medicinal treatment should, of course, be used.

News Item

ELECTION OF RESIDENT PHYSICIAN IN THE POLYCLINIC HOSPITAL.—On Tuesday, September 21st, the Board of Trustees will elect a resident physician, to fill the regular term, commencing October 1st next. All applications should be made in writing, and sent to the Secretary of the Board of Trustees, at the hospital, not later than the 19th inst. Any further information can be secured from the superintendent at the hospital.



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Extracts from the Fifteenth Annual Announcement

OF THE

Philadelphia Polyclinic and College for Graduates in Medicine

GENERAL INFORMATION

The Philadelphia Polyclinic and College for Graduates in Medicine was organized in December, 1882, and opened for clinical work and teaching early in 1883. It has steadily extended its facilities and opportunities for practical work, until now it has entered upon its fifteenth year with a corps of fifty professors, lecturers and adjunct professors and thirty-one instructors, hospital and laboratory buildings of modern construction and fully equipped, and including a *Röntgen-Ray Department*, the work of which is unexcelled; while in addition to its own dispensary services aggregating 18,000 new cases per annum, the clinical advantages of nearly all the hospitals of Philadelphia may be utilized by its pupils. Although its classes continue to increase, it still makes a feature of offering the *direct personal instruction* and full opportunities for actual clinical work that have been so highly valued by its former pupils.

Thus the Polyclinic opens to all graduates in medicine its facilities for acquiring a practical acquaintance with the clinical aspects of disease and the diagnostic procedures and methods of treatment in general medicine and surgery that were formerly attainable only by those who held positions as resident physicians in the larger hospitals; and in the special branches, like gynecology and diseases of the eye, ear, nose and throat, the opportunities which it offers have never before been generally attainable, and are unsurpassed anywhere in this country or in Europe. The members of its limited classes *personally examine* cases of disease and employ the instruments of precision in diagnosis and treatment, participating in the actual work of the clinic and the laboratory.

Economy of Time.—Courses may begin at any date, and the hours for instruction in the various departments have been arranged with a view to enable the pupil, whether he takes a single branch or many, to make the fullest possible use of his time. The total amount of work offered is many times that which can be undertaken by any one person at one time; so that there is much room for choice to meet the needs of each as to time and subjects.

The General Schedule (pp. 16, 17) shows 110 hours of work daily at the Polyclinic itself, and the Special Schedules (pp. 18-22) aggregate many times this amount.

The Situation of the Hospital is central, almost equidistant from the University of Pennsylvania, the Jefferson Medical College, and the Medico-Chirurgical College—easily accessible from all directions, and near to such valuable special institutions as the Children's, Rush Consumption, Wills' Eye and Orthopedic Hospitals, and to the great Library and Mütter Museum of the College of Physicians.

On reaching the city, physicians should come directly to the Polyclinic, where information as to boarding places will be furnished. Board can be obtained from \$4.50 per week upwards. The Clerk will furnish applicants with a list of boarding houses.

FEES.

The following fees are for tickets issued during the period covered by the regular winter session, from October 1st to June 15th.

Tickets are generally issued for courses of six consecutive weeks. When the physician-pupil can attend but one day in the week, the period is extended

phia College of Pharmacy, asking if he could inform me as to the ingredients contained. To my inquiries, I received the following courteous reply :

"What is known as Jamaica ginger, or, more properly, essence of Jamaica ginger, is made in a very simple manner, by percolating the ground ginger-root with alcohol, or alcohol containing water. The cheap trash found in country stores is often made with a portion of capsicum, in this way saving expense. You can see that a very little capsicum would take the place in pungency of a large quantity of ginger. Of course, sufficient ginger would have to be used to give a flavor to the decoction. Then again it is made hot with cayenne pepper; a weaker alcohol can be used, and this would cheapen the product very much."

From the suddenness of the blindness, the profound condition following and the history of several other men being affected, it would seem as if the presence of foreign materials in the spirit would be the more likely to cause amblyopia.

The fields are most interesting, as I think they clearly indicate the pathologic process that has taken place in the nerve.

FIELDS.

Description of fields :

- a. Form field.
- b. Blue field.
- c. Red field.
- d. Relative scotoma for red.
- e. The heavily shaded portion, positive scotoma, both for form and color.
- f. Lightly shaded portion relative scotoma. (Form is perceived badly, *i. e.*, white appears dirty, not clear, as in other portions of the field).

As no post-mortem examination has been reported in an acute case of this character, and as there is primary atrophy of the optic nerve, I take it that the following series of changes have taken place in the nerve: First, from the profound poisoning there resulted an acute interstitial retro-bulbar neuritis or effusion into the sheath of the nerve, affecting, as alcohol always does, the papulo-macular bundle of fibers and producing, most probably, at first a central scotoma, negative in character (that is, for colors and not for form), with the resulting blurring on

the first day. As the neuritis or effusion increased, and the pressure on the axis-cylinders became greater, the scotoma gradually changed from negative to positive and finally became larger and larger until it spread over the entire field, causing complete blindness. After the seven days of blindness, as the neuritis or effusion subsided, the pressure was relieved and vision gradually returned, with the exception of that effected through the papulo-macular bundle, which, owing to its depth in the nerve, was more seriously affected by the pressure. The renewed failure of vision after three weeks is to be attributed to a consecutive atrophy following upon the pressure exerted upon the axis cylinders as a result of the neuritis. This sequence is clearly demonstrated by the interesting fields, showing the "breaking through of the scotoma" to finally meet the periphery of the field, indicating not only an atrophy of the macular bundle, but its extension to adjacent fibers. The portion of the field represented by the letter *f* shows that the fibers of this region have not undergone complete atrophy, but are damaged so that they will not respond with the same promptness to the vibrations of light as the other portions of the field.

The American Monthly Review of Reviews for September has a good deal to say about the Andrews' incident and Brown University—not so much, as the editor remarks, on account of the personal interests involved in the case as because of the far-reaching principles affecting academic life and liberty which have become matters at issue. A fair-minded and judicious estimate of President Andrews' services to Brown is given by a writer fully conversant with the facts, and the protest of the faculty is printed in full. The editorial comments on the awkwardness and needlessness of the situation are piquant and to the point.

BOOKS RECEIVED.

- A COMPEND OF THE DISEASES OF THE EYE AND REFRACTION, INCLUDING TREATMENT AND SURGERY. By George M. Gould, A.M., M.D., and Walter L. Pyle, A.M., M.D. One hundred and eleven illustrations, and a colored Frontispiece. Pp. 258. Philadelphia: P. Blakiston, Sons. 1897.

THE PHILADELPHIA POLYCLINIC

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UNRECOGNIZED SYPHILIS IN THE CHILD.

BY JAMES H. MCKEE, M.D.

Instructor in Children's Diseases, Philadelphia Polyclinic; Assistant Demonstrator of Physiology in the University of Pennsylvania, etc.

PROVIDED that one elicits a careful family history, and that one's examinations of an infant be thorough, there are few diagnoses that can be more readily made than that of hereditary or infantile syphilis. If these diagnoses are not made early, and the secondary or mixed secondary and tertiary signs are so slight as to escape parental observation, syphilitic manifestations may remain quiescent for a varying period of time. When finally symptoms do appear, the term *delayed syphilis* (late syphilis Fournier) is sometimes applied to the late manifestations of the hereditary disease. That this term is misleading in the extreme, the most superficial reflection will reveal. It is the diagnosis and not the disease which has been delayed.

The five cases here recorded were all seen in the service of Prof. J. Madison Taylor, and within a period of as many months. In each case the hereditary disease had escaped detection in early infancy. To Dr. Fritz of the Children's Clinic, I am indebted for the following histories:

CASE I.—Susannah McG., æt. 7 years, white.

Family history.—Her male parent at the age of thirty-four years was brought home one day in an unconscious condition. He had rightsided hemiplegia. In a later attack the left side of the body was similarly affected. With the first seizure, aphasia was almost absolute, but he is now regaining

rapidly his use of spoken language. He had an eruption upon his body about six years ago. The mother has aborted three times, at the sixth week, third month, and a later period respectively. Two abortions preceded the birth of our patient; the latest one followed.

Previous history.—No infantile history is furnished. Two years ago the child had enteric fever, and a year later an eruption around the nose and mouth was diagnosed syphilis at the Howard Hospital. The child came to us complaining of sore throat.

July 7, '96.—*Status præsens.*—Our record is confined to the appearance of the throat. Punched out superficial ulcers are observed upon the tonsils. They are small and are covered with grayish bases. Superficially the appearance might be mistaken for follicular tonsilitis. The absence of active inflammation around the ulcers is regarded as important in differential diagnosis. The tonsils are slightly enlarged.

The bowels were opened with divided doses of calomel and the child was placed upon mixed treatment.

July 9th.—She returned much improved, the ulcerations are healing.

July 17th.—The tonsils are entirely clean, and much reduced in size.

We here lost sight of the case.

CASE II.—Charles McC., æt. 6 years, white.

Family history.—His mother has three children, and gives a history of as many abortions.

Past history.—This includes measles, diphtheria and pertussis. Last year the anterior cervical glands were much enlarged.

Status præsens.—The boy is simply covered with gummatous and tubercular syphodermata. They are especially marked upon the abdomen, penis, scrotum, palms of the hand, soles of the feet, legs and anal region. The ulcerations were least marked upon the face, and were worst around the anal orifice. In the latter site were found irregular ulcers of at least $1\frac{1}{2}$ inches in their largest diameters. Because of the unusual appearance we referred this boy to the Skin Clinic.

CASE III.—Willie H., æt. 2 years, white.

Family history.—The father is markedly alcoholic. The mother has one child older than the patient, and apparently well. Since the birth of our patient she has aborted twice, once at the second and once at the third month.

Previous history.—The patient was born at full term and the labor was not a difficult one. The mother states, however, that she felt pains two weeks before the child was born. The patient was weaned at the fourth month. When two months old the mother noted that the "left side of the baby's body was weak."

August 26, '96.—*Status præsens.*—(Our notes record the paralytic condition alone.) The left leg can be moved voluntarily but not so readily as its fellow. The arm shows more marked paresis, but with no contractures. Neither arm nor leg exhibit appreciable atrophy. Spasticity, however, is observed in both members. The left knee jerk is greater than the right. Facial palsy, inequality of the pupils, divergence of the tongue and athetosis are all absent. The baby has not learned to talk as rapidly as his elder brother. He does not walk without aid of tables, chairs, etc.

An inunction of mercurial ointment and lanoline was ordered b. d. We also advised daily friction of the arm and leg, and constant encouragement in their use.

August 29, '96.—The patient returns with reported improved movement in both arm and leg (?).

September 5, '96.—The spasticity in the limbs seems slightly decreased. He is beginning to walk alone.

Sept. 12, '97. The boy is much improved in every way, but improvement in his general bodily condition has far exceeded the local gain.

(Here we lost sight of the patient.)

Very properly, the objection may be raised, that this case may have represented a cerebral birth palsy, and not necessarily one of specific origin. The labor, however, was not prolonged; instruments were not used; nor was the baby born cyanosed nor in a state of asphyxia pallida. As against cerebral hemorrhage of later occurrence, we have an absence of convulsions, of coma or high fever. We are sorry that treatment could not have extended over a longer period of time, but are inclined to regard the partial though speedy improvement as important in diagnosis.

CASE IV.—Mary C—, æt. 13 years, white; schoolgirl.

Family history.—There are no other children in the family. Her father was dissolute and a drunkard. The mother died shortly after the child's birth, presumably of phthisis, stating upon her death-bed, however, that she had contracted syphilis from her husband.

Previous history.—The child has always been delicate and small in stature. At school her eyes have persistently given her trouble, though in spite of this, she is markedly precocious. She suffers much with headache.

Status præsens (Sept. 7, '96).—The child's appearance is an incongruous one. Not more than four feet in height, she presents the face of a woman. The latter effect is heightened by strong, almost seamed, facial lines, and by spectacles. The head is square and rachitic with a somewhat overhanging brow. The pupils are unequal in size, the left being larger and quite immobile; she sees very imperfectly and sight is almost lost in the left eye. The bridge of her nose is much depressed. The upper central incisors are typically Hutchinsonian. Radiating scars at the corners of the mouth bespeak former rhagades. All of the long bones of the limbs seemed shortened, giving the child quite a square appearance. Darkly pigmented and whitish scars are observed upon the chest and abdomen. Heart, lungs, liver and spleen exhibit nothing of clinical interest.

Sept. 19, '96.—The child returns free from headaches and with sight slightly improved.

She is a most intelligent girl, and assures us that she is feeling "wholly different in every way."

Sept. 29, '97.—Professor Jackson, who saw her at the Wills' Eye Hospital, reports the following conditions: "Hypermyopia of the left eye. A crescent of partly absorbed choroid is observed outwardly. The neighboring choroid is thin and very patchy. Marked thinning and dotted pigment deposits are observed at the macula; the thinning being more noticeable at the periphery. The left eye exhibits the same lesions, but they are less symmetrical.

Oct. 17, '96.—She is improved in every way. Her sight has improved wonderfully, and she is gaining in weight. (Throughout this period the child was given mixed treatment. Like the other cases, she passed from observation as she commenced to improve.)

This child had at different times been treated at several dispensaries, and her grandmother assured us that not once had her case been regarded as a congenital one.

CASE V.—Jeanette R.—, æt. 13 months, white.

Family history.—Negative.

Previous history.—The baby has had "snuffles" from birth, though no eruption was noted early in infantile life.

Status præsens (Sept. 1, '96.)—The facies show the characteristic old appearance. The nasal bridge is depressed. The discharge from the nose has excoriated the upper lip. (So marked was the mouth-breathing in this case that we referred the infant to Dr. Gibb. He found an enlarged pharyngeal tonsil, and confirmed our diagnosis of congenital syphilis.)

In making a diagnosis one must not forget that syphilis in the infant may be acquired as from the maternal breast, and that in childhood the disease may result as in the adult.

I can scarcely leave this subject of congenital syphilis without mentioning the pronounced signs of syphilis sometimes observable in childish immigrants. As one member of the Polyclinic class remarked whilst we were inspecting such a case: "Legislation directed toward poverty of the immigrant's body, would seem as important as an examination of his pocket book."

The chapter upon "Syphilitic Heredity and Hereditary Syphilis," in White and Martin's recent publication, is a masterful presentation of this subject, and the writer commends it to any one interested in the matter of his paper.

A CASE OF ACETANILID POISONING.

BY L. N. GARTMAN, M.D., and M. V. BALL, M.D., Philadelphia.

C. R., aged 3 years and 5 months, was scalded, on the 17th of August, over buttocks, thighs, scrotum and penis. He was dressed with an ointment containing 10 per cent. acetanilid. About 3 ounces were used at the first dressing. Two days after the wound was re-dressed, some sloughened tissue was removed, leaving a raw surface, and 3 ounces of the ointment again applied. Two hours after this application, the child commenced to turn blue, this discoloration gradually deepened, until when the physician arrived, an hour later, the skin and mucous membranes were blackish blue; the nails of fingers, tongue and lips were ghastly. The smaller veins all over the body were prominent. The pulse was over 160 per minute. The temperature was subnormal, a

profuse sweat covered the body, and could be seen collecting on the forehead. The extremities were cold. Respirations were not affected.

The child was drowsy, but whether this was due to some bromid and opium which had been administered during the morning, is not quite clear. Consciousness was retained, everything was taken by the patient that was offered to it. There were no palsies, the fingers were, however, slightly rigid. Sensibility was not impaired, the child crying when the injured surface was touched. Because of the injury to the penis, urine was voided with difficulty. A small quantity drawn with catheter showed specific gravity 1033, acid reaction, no albumin. The quantity passed in the next

twenty-four hours did not exceed 10 ounces. The treatment consisted in restoratives, as whisky, ammonia, amyl nitrite, hot bottles and hot bath, strychnin. The color gradually changed to natural, but occasionally it would deepen to blue, until 7 P.M., six hours after, when it had entirely cleared up. Temperature increased to 101° the next morning and 103° the following evening, coming down to normal on third day. The urine gradually increased in quantity, and never showed albumin. The wounds healed nicely.

Society Proceedings

The Philadelphia County Medical Society, June 23, 1897.

DR. HENRY BEATES read a paper on

SOME OF THE CAUSES DEFEATING THE PROPER
PROGRESS OF THERAPEUTICS.

IN consideration of this subject, the question naturally arises as to whether or not there is a progress in therapeutics which, when compared with the advance in other departments of our art and science, can properly be considered commensurate. The answer to such an inquiry can be most briefly and positively stated, and, with regret, is formulated in the negative, by a perusal of the latest standard works of reference. With few exceptions, those diseases with which we are most frequently confronted, and which comprise the more common or prevalent, compel the realization of the fact that therapeutics cannot lay claim to much, when viewed from the standpoint of the physiologist, pathologist and surgeon.

Let us consider such a frequently encountered affection as acute croupous or lobar pneumonia. Its treatment to-day is still argued as it was decades ago, and the pages of volumes of reference, as well as the fiat from the professorial desk, teem with interrogations that should long ago have been definitely and positively settled, had the same careful and analytic study been instituted that characterizes research in other channels. Etiologically, the almost exclusively mechanical interpretation of the circulatory function of the affected pulmonary lobe, if this is the only area diseased, which is submitted as an explanation for that peculiar exudate which, it may here be remarked, could not be caused by any interference, purely mechanical, with

the venous or arterial side *in loco*—still obtains, and the advocates and adversaries of phlebotomy and the champions of aconite, tartar-emetic and veratrum viride all have disciples, who find the subject completely unsolved by the tests of practice as it was a century ago. The average mortality of 28 per cent., now as then, substantiates the fact that, in this disease, therapeutics has not progressed.

Why, in the light of the facts, are these incomplete teachings still perpetuated? The great frequency of this disease and the opportunities offered for lines of thought and investigation in channels dissociated from the traditional beliefs, when still surrounded by this circulatory infatuation, in spite of its almost incessantly demonstrated uselessness, should, at least, direct attention to the study of its treatment upon an entirely different basis. If there is one fact established about pneumonia, it certainly is that it is not, *per se*, an inflammation of the lung. It is, unquestionably, an expression of a trophic derangement followed, it is true, secondarily, by inflammatory phenomena, and why, therefore, the early treatment should still center about the antiphlogistic notion is a question that can fittingly be propounded.

Syphilis will also serve as an illustration; its natural history, so to speak, affords a clinical picture so distinct that, even though its *materies morbi* is still in doubt, the ultimate is comparatively easily prognosticated, and yet its therapeutics is still debated around the mercurial and non-mercurial methods and such subdivisions thereof as the interrupted and continuous, mixed, and several other useless combinations and modifications, which, when carefully followed as to their results, discloses negatives that should, long ago, have relegated them to the oblivion they so well deserve. There is scarcely any affection which, if skillfully treated according to the rules that should be determined by the conditions obtaining in the individual sufferer, offers such promise of relief as this disease, and when the notions that are formulated in the terms already indicated will have been abandoned and a proper advance made in its therapeutics, the psoriasis lingualis syphilitica and other commonly seen lesions of the mucous membrane will cease to be so frequent in cases that have been discharged

as cured but improperly treated as the result of these modified plans.

Pertussis, notwithstanding our ignorance of *Afanassiew's bacillus*, has recommended for its treatment, in the latest works issued by a prolific medical press, a host of pharmaceutical preparations, the trial of which, long ago, incontestably proved their impotence, and yet there is perpetuated, to the discredit of the most important department of our profession, such teaching.

If the treatment of the acute inflammatory troubles, most commonly met, is examined, what do we find? In simple acute laryngitis, quinia is advised in quantities, for which a caution is deemed necessary, in order not to add to the existing trouble aural and cerebral difficulties that would be decidedly worse than the affection to be treated. Are such absurdities unusual? Unfortunately, they can be enumerated for too many diseases that long, ere this, should have ceased to be so managed.

As to the therapeutics of simple acute pleurisy, it suffices to point to the many instances of irreparably disabled victims, whose health has been damaged by a serious deformity resulting from changes of structure requiring an ultimate resort to surgery, necessitated by the consequences of a plan of treatment which advance in bacteriology and pathology has demonstrated to be no longer valid, and to rely upon applications, and the exhibition of absorbents which, over and over again have been proved to be almost useless, until an innocuous transudation has become the seat of retrograde changes, resulting in the development of a focus for infection and destruction.

Well may the injunction, intimated in one of our most recent and reliable works of reference, be seriously contemplated, with a view of establishing treatment at least different from that which has and still prevails: "That is *medicatrix naturæ*" is probably the chief remedial agent in many cases, non-rheumatic, in which (latter) cure takes place under the use of the salicylic compounds, potassium iodid, or other specific drugs. It is better oftentimes to do nothing, in so far as remedial agents are concerned, than to institute procedures about which if anything is known, the least and most that can be said is that no appreciable effects have been secured. To

apparently be doing something and having as a result nothing lends to nothing a dignity and value dangerous to the integrity of the profession!

It is needless to further consume time with additional illustrations, and attention is directed to some of the causes operative in the maintenance of the situation just depicted. The most important factor doubtless is a lack of knowledge on the part of the profession of the natural course and termination of disease. Very meager are the published facts governing this important theme, and teaching is conspicuous for the absence thereof, and consequently the clinician, no matter what plan of treatment is instituted, is incapable of recognizing whether or not morbid processes have been modified beneficially or injuriously.

Reflection upon this fact discovers much to account for the perpetuation of relatively valueless therapeutics. Dependence upon the goddess of fortune too commonly pacifies conscience and engenders a habit of thought and procedure pernicious to therapeutic progress. To such, at the bedside, the exhibition of almost anything, alone or in complex combination, suffices so long as the patient continues to improve, and when this does not take place there is a consultation or a change of physicians resulting in a resort to some ridiculous "pathy" and such careless and defective therapeutics is crowned with a result just as good, or, more correctly speaking, just as bad from the one plan as the other.

Another cause is our *materia medica*. Why the brain of a student must be engaged at the expense of energy and time that should be occupied in the acquisition of more valuable knowledge in memorizing the name, habitat, natural order, preparations and doses of a lot of obsolete and useless drugs is a question not inopportune. Such substances as castorum, camphoric acid, lactucarium, veratria, urethan, oxalic acid, geranium and an array of innumerable and superfluous preparations of even our standard drugs, should be relegated to regions remote and not be a cause for an anxiety in the green room, which, unfortunately, does not end there, but is in danger of inculcating a lack of confidence in medicines of value and unquestioned merit, frequently reaching far into later life.

Associated herewith is the congener pharmacy. The classification of drugs is based upon their especial and intrinsic or inherent properties, and as many are derived from the vegetable kingdom, in which according to conditions there existing, they must of necessity be characterized by complexity of composition and we have variable and uncertain means. Several active principles are contained in one crude drug, and according to the solubility of these in the medium employed in pharmacy do tinctures, infusions, decoctions, extracts alcoholic and aqueous, and the drug itself represent remedial agents from which it is impossible to obtain uniform, definite or specific results, and to look under these conditions for achievements in therapeutics which should be distinct and unmistakable is unreasonable.

Again, even the chief active principle, or that which classifies a drug, is present in such a varying percentage that it is impossible to prescribe any of these preparations, from this or that pharmacy, with anything like precision and accuracy. Among several remedies, I have investigated the tincture and fluid and solid extracts of aconite root, and repeatedly found such variation in therapeutic power as to render it impossible to regulate the dose with the hope of securing anything like definite results. One tincture, by carefully graded increasing quantities was found to be inert so far as physiologic phenomena were concerned until administered in doses of one fluidram. Is it any wonder then, that these conditions which obtain alike for all drugs thus derived, result in the abandonment of many most valuable remedies, and a consequent misinterpretation, not only of the virtue of remedial agents, but also of the modification of the natural course of disease, and consequently of therapeutics.

Our preparations should be assayed not chemically only, but both chemically and physiologically, for to secure a uniform standard of strength for organic alkaloidal derivatives by chemistry alone is, for obvious reasons, impracticable; hence the necessity for the physiologic. Another point, in a sense foreign to the profession, but no small factor in obstructing progress, is the unreliable pharmacist, but as this is somewhat be-

yond the subject-matter of these remarks, it will be dismissed with a passing notice.

Thus obtain conditions within our province, to correct which determine the existence of a now well-established custom, alike destructive to the integrity of clinical medicine, therapeutic progress, and the art and science of pharmacy. Judging from the enormous manufacture and consumption of the many varieties of foods and the falsely designated diastasic products, the inference is fair that too commonly does the profession seek guidance for therapeutics from the pamphlet literature of this modern but evil institution. A diagrammatic illustration of an alleged microscopic field exactly demonstrates how a red blood-corpuscle opens its receptive channels at once to the chalybeate which, manufactured here or there, is dubbed a knight of peculiar and mysterious power.

Again, our trusted friend, cod-liver oil, which we know effects its truly beneficial influence upon metabolism when administered complete, is presented to us in such fragmentary and associated conditions, each one of which, according to this class of literature, is said to embody the virtues of its entirety, as to largely result in the defeat of its purpose; and what has been said of this is applicable equally to many more of our medicines. The avidity with which the clinician grasps this is another illustration of an obstructive factor already mentioned.

The compressed disk is another evil, and should be accorded a place befitting its true value. That such products render impracticable proper dosage and combination, and therefore defeat skilful and effective therapeutics, is obvious. A sadder sight, conspicuously sitting as judge over such customs, cannot well be conjectured than that of the slowly and struggling convalescent being improperly nourished by one of these many products composed of cheap whisky, well diluted, mingled perhaps with a pretence of some proteid element and flavored with an essential oil and licorice; and yet it constitutes a type of that degenerate therapeutics which already has in a great measure supplanted the legitimate and taken the place of that well-trained, skilful and scientific practice that should be the purpose and highest achievement of the profession.

THE PHILADELPHIA POLYCLINIC

Brief, practical, original articles, and news of general professional interest are solicited for publication in this journal. Contributions accepted will be paid for on publication, or, if desired, and so indicated on the manuscript, 250 reprints will be furnished in lieu of other compensation.

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PHILADELPHIA, SEPTEMBER 18, 1897

PROS AND CONS OF BICYCLE RIDING.

THERE seems to be no end to the discussion in the secular and medical press concerning the benefits or ills of bicycling. Nor does there seem to be any word-color too vivid to be used by the enthusiast in painting the delights and advantages of his favorite sport, or too somber, not to say lurid, for the opponent of wheeling to use in portraying its evil tendencies.

Our esteemed cotemporary, the *Cincinnati Lancet-Clinic*, seems to have forgotten its ordinary good common sense in denouncing the wheel as a sport for women. There are all sorts and conditions of men and women in the world, and these may be found at home and abroad, afoot, in coaches, on horses, or on wheels. All that one needs while wheeling is to exercise the same care as to her company that she does at home or while out of doors in any other manner. In this part of the country at least, such exhibitions as that depicted by our Cincinnati cotemporary in its denunciation of the tandem are not given. In fact, we have often thought what a pleasant method of wheeling in company the tandem afforded.

It is true that more care should be exercised in the matter of selecting saddles, but

there are many patterns now in the market entirely free from objection. It is also true that immoderate or injudicious use of the bicycle will lead to injury and disease, just as immoderate or injudicious use of anything else on earth will have the same effect. But because foolish "scorchers" or their imitators get crooked spines, because those who ride hills that should be walked hurt their hearts, because those women who ride at times when they should be resting, suffer the inevitable results of their indiscretion, because the careless fall into bad company, and the immodest give repellent exhibitions, all these and the innumerable similar objections afford no reason why those men or women who pursue modestly, moderately, and with discretion in all things, a pleasurable and health-giving exercise, should be debarred therefrom.

As a matter of fact, the bicycle has come to stay. Its abuses will be minimized as experience increases; and if it does women no other good than to teach them the evil of wearing corsets and encourage them to get rid of the useles and heavy multiplicity of skirts about their waists—nay, if it accomplishes nothing more than to abolish the train or to make the wearers of short skirts less conscious of their legs and ankles, it will have done enough good to counterbalance all the imaginary evils which our cotemporary dreads.

S. S. C.

Editorial Notes

Dr. Hu King En, a graduate of the Woman's Medical College of Pennsylvania, and well remembered by the faculty of the Philadelphia Polyclinic, where she attended for many months of post-graduate study, as among the best grounded and most industrious pupils of the school, has been placed in charge of a hospital in her native land, the Liang-Hu Hospital at Foo Chow. We feel confident that the reputation of Philadelphia as a teaching center will be increased by the

good record Dr. Hu will make for herself. Several pupils of the Philadelphia Polyclinic are likewise doing good work in China and Japan as medical missionaries.

* *

The American Pediatric Society has already done good service for the advancement of our knowledge of medicine, by the collective investigations which it has carried out during the last two years upon the value of antitoxin in the treatment of diphtheria. Now we are glad to see that it is turning its attention to the subject of Infantile Scurvy. This disease, unknown, or rather unrecognized, only a few years ago, is attracting constantly increasing attention at the present time, although, it is true, the writers upon it in medical journals have confined themselves, for the most part, to reports of cases merely. There is, indeed, good reason for this, for observers are prepared as yet to do little more than record their individual experiences. The fact of the matter is, that, with all that has been written upon it, little positive is known about infantile scurvy. To gain some positive knowledge of just what the causes, symptoms and pathology of the affection are, the American Pediatric Society is requesting the co-operation of the physicians of the country. We call attention to the notice which we publish in another column of this paper, and we would urge our readers who have seen cases, or who know of physicians who have, to communicate with the committee.

Current Literature

The Serum Diagnosis of Typhoid Fever. From a study of the blood in 102 cases of typhoid fever and in 116 cases of other forms of disease, in conjunction with an analysis of the results obtained by other investigators, Dr. J. C. Da Costa, Jr. (*New York Medical Journal*, Aug. 21, 1897, p. 246) concludes that a positive reaction may be ob-

tained to the Widal serum test in more than 90 per cent. of typhoid fever, and in the same proportion of cases between the fourth and the seventh day inclusive. In more than three per cent. of diseases other than typhoid fever reactions are produced which are indistinguishable from typical typhoid reactions. Positive reactions are occasionally met with in individuals who have had typhoid fever some months previously, but who are in good health at the time of the examination. Negative reactions are obtained with the blood of healthy persons who have not had typhoid fever recently. Typhoid blood which has been kept in a dried state for eighty-six days will yield a typical reaction.

A. A. E.

* *

The Nervous Lesions Associated with Chronic Alcoholism.—After describing the lesions of the nerve-cells of the rabbit's brain, induced experimentally by chronic alcoholic poisoning, Berkley (*Johns Hopkins Hospital Reports*, vol. vi, 1897) dwells on the points of correspondence between the lesions and the symptoms. The sensory derangement, the exaggerated sensibility of the skin, the anesthetic troubles, the ocular and auditory disorders correspond to the beginning of the vascular disturbances, when the nerve-cells, irritated by an insufficient supply of proper nutriment and excited by the presence of a poisonous stimulus, overact for the time; and then, as nutrition is still withheld from them, altered metabolism results. The beginning swelling of the dendrites of the sensori-motor region is marked by paresthetic and anesthetic symptoms, those of the purer sensory region by visual and ocular troubles, and some amnesia, especially for recent events; in other words, the cells that have the function of evolving and transmitting thought cannot work properly, and defective memory results. Later, as the motor cells are more and more involved and nuclear changes begin, continuous tremor becomes apparent, and the muscles no longer co-ordinate perfectly, unless for a moment under the direct influence of the will. Still later, when a portion of the cell-structures have become highly degenerated, and the altered cells have become more numerous, the already tottering will-power

becomes more and more deadened, and memory and judgment fail; and when the degenerative process is far advanced, incomplete dementia is the final result. The fact that only a portion of the cells of the cerebrum are involved in the degenerative process does not militate against the entire conception of the pathologic entity. The nerve-elements of the brain are intricately united, one with another, by means of their axons and collaterals, and are not able to functionate perfectly unless the normal relations to one another are preserved. A lesion in one cell will induce disorders in the function of two or more cells not involved in any morbid change, the intricate system of collaterals issuing from one cell influencing directly the impressions and nervous impulses arising from many others, and in this way widespread disordered action of large numbers of the cerebral cells may be the result of disease in a comparatively few elements.

A. A. E.

In the Clinics

IN the *early diagnosis of pregnancy*, Dr. Wells considers the following signs of the greatest value:

(1) The change of the body of the uterus from the shape of a pear flattened in its antero-posterior diameter to a globular form.

(2) The cervix becomes wider, shorter and much softer in the pregnant than in the non-pregnant state.

(3) The softening of the lower uterine segment.

When all three of the above conditions are present, the patient is almost certainly pregnant.

The Laboratory

Under the Editorial Charge of Henry Leffmann.

Estimation of Uric Acid.—The quantitative determination of uric acid is now regarded as of much importance in clinical chemistry. Without going to the length that Haig and some other over-enthusiastic writers have

gone, we must recognize that the estimation of any characteristic ingredient of the urine will be of clinical value. Several methods of estimating uric acid have been proposed. Those that approach accuracy are tedious and troublesome; the rapid methods are unreliable.

In the August number of the *Journal of the American Chemical Society*, Dr. E. H. Bartley describes a process devised by him, being a modification of a standard method. He prefaces his description by a discussion of the usual methods and the objections to them, but these points need not be given here. The Bartley process is, briefly, as follows:

Fifty c.c. or 100 c.c. of the sample are mixed with 5 c.c. of magnesium mixture (see below) and 10 c.c. of ammonium hydroxid (sp. gr. .960). The liquid is warmed in the steam-bath and fiftieth normal silver nitrate added by small portions from a buret. After each addition, a small portion of the mixed liquid is removed by means of dropping-tube, over the end of which a piece of absorbent cotton has been wound. The cotton acts as a filter; it is removed, a drop of the clear liquid expelled from the tube and touched with a drop of solution of sodium hydrosulfid. As soon as the silver solution is in excess, showing that the whole of the uric acid has been precipitated, the drop will produce a black precipitate with the sulfid. For each 50 c.c. of liquid it will require an excess of about 0.5 c.c. of silver solution to give a distinct final reaction, which amount should be deducted from the reading of the buret. One c.c. of fiftieth normal silver nitrate corresponds to 0.00336 of uric acid. The liquid must be kept hot during the experiment in order to prevent the precipitation of xanthin bases.

The magnesium mixture is intended to remove phosphates. It is prepared by mixing 10 grams of magnesium sulfate, 20 grams of

pure ammonium chlorid, 80 c.c. of water and 40 c.c. of ammonium hydroxid solution, sp. gr. .960.

Dr. Bartley tested the method on solutions of pure uric acid of known strength, dissolved by the aid of sodium phosphate and sodium hydroxid, and attained satisfactory results. I have made a partial trial of the method, but not enough to speak definitely. It is still under investigation. The manipulation for determining the completion of the precipitation is susceptible of improvement. It will be especially desirable to replace, if possible, the sodium sulfid by some more familiar and convenient reagent.

Many physicians seem to ignore the fact that quantitative determinations of uric acid are of no value unless made upon a sample of the mixed urine of twenty-four hours.

* *

Modified Nylander's Solution.—The modification of Nylander's solution by substituting glycerol for sodium potassium tartrate, noted in a previous issue of THE POLYCLINIC, has proved quite satisfactory in use. It was found advisable to reduce the proportions of bismuth oxynitrate to about one-fourth that recommended by Nylander, and increase the amount of glycerol. The solution keeps well and reacts about the same as the solution made in the original form.

News Items

DR. FRANCIS T. STEWART (J. M. C. '96), who has just finished with honor a 15 months' term of service as interne at the Polyclinic Hospital, having been the first to serve in the new position of Senior Resident, has been appointed to the Resident Staff of the Pennsylvania Hospital.

* *

THE AMERICAN PEDIATRIC SOCIETY is making a Collective Investigation of Infantile Scurvy as occurring in North America, and earnestly requests the co-operation of physi-

cians, through their sending of reports of cases, whether these have already been published or not. No case will be used in such a way as to interfere with its subsequent publication by the observer. Blanks containing questions to be filled out will be furnished on application to any one of the committee. A final printed report of the investigation will be sent to those furnishing cases.

[Signed].

J. P. CROZER GRIFFITH, M.D., *Chairman*,
123 S. 18th St., Philadelphia.
WILLIAM D. BOOKER, M.D.,
853 Park Ave., Baltimore.
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753 Madison Ave., New York City.
J. LOVETT MORSE, M.D.,
317 Marlboro St., Boston.
Committee.

New Publication

SYRINGOMYELIA—Being the Alvarenga Prize Essay for 1895. By Guy Hinsdale, M.D. Philadelphia: P. Blakiston, Son & Co. 1897.

DR. HINSDALE has made a careful, exhaustive and analytic study of all recorded cases of syringomyelia, and presents the results in a clear, logical and systematic manner. The monograph is well worthy of the prize awarded to it, and will be a storehouse of information for all interested in the important questions it discusses.

WRITE to the Secretary for the new announcement of the Philadelphia Polyclinic and College for Graduates in Medicine.



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THE PHILADELPHIA POLYCLINIC

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THE MEDICAL RELATIONS OF THE CORRECTION OF ERRORS OF REFRACTION.¹

BY EDWARD JACKSON, A.M., M.D.

Professor of Diseases of the Eye in the Philadelphia Polyclinic; Surgeon to Wills' Eye Hospital.

THERE are a number of topics upon which under other circumstances I should have been glad to address you, but considering the transition state of the work of correcting the optical errors of the eye; the newness of the movement toward organization among opticians; the mistaken attempts at legislation which have been made in a neighboring State; the erroneous character of some of the hopes that have been entertained concerning the future work of the optician and the importance of the different interests involved; I was unwilling to address you at this time, except upon the subject of the medical relations of the correction of errors of refraction, and what seem to me certain logical deductions therefrom. To listen appreciatively to statements with which one does not agree, or to learn from one's opponent in discussion, is often neither easy nor agreeable, yet it may be a very profitable thing to do; and I assume that you are able to do it.

The importance of the medical relations of errors of refraction and their correction arises from the unity of the human body. It was long ago noticed that "if one member suffer all the members suffer with it;" and subsequent learning has in no way lessened the practical importance of this central fact of physiology. It is true, that we may regard

the body as composed of individual living units working together. But these individual units are the animal cells, and not the particular organs of the body. Anatomically, an organ may exist alone—we may have its form, its certain mass of tissues. But physiologically it has no existence except as it is in connection with other organs. Everything that one organ does, has relations with other parts of the body. Everything it needs it receives through other organs.

This is eminently true of the eye. The dioptric surfaces focus light entering the eye, but the focusing of light would be of not the slightest service or importance, if there were not a sensitive retina capable of transforming the light-impulse into a nerve-impulse. The retina in turn would be equally useless were it not connected with nerve tracts, capable of conveying impulses from it to the brain centers. Even after the impression originating in light had been carried to the visual centers, it would be of no practical value in the affairs of life were not these centers intimately connected with other centers receiving impulses through their especial channels, and others capable of sending out impulses giving rise to movements.

The most startling sight is only "seen" after the performance of a whole series of

¹ Read before the Optical Society of Pennsylvania, September 14, 1897.

nerve actions and movements. When a special light stimulus reaches some part of the periphery of the retina it is transmuted into nerve-impulse and transmitted to brain centers, from which are sent out a series of impulses to the muscles that turn the eye; and perhaps, to muscles that turn the head or the body. Through these the eyes are turned so that the light in question may be received on the most sensitive part of the retina. After this is accomplished and the eyes are turned toward the point from which the light comes, begins the series of nerve impulses, yet more complex and extensive, by which the significance of the thing seen is appreciated.

The utter uselessness of even the perfect eye, without its developed and educated system of nerve connections, is illustrated by the helplessness of persons first given good sight by cataract operations, when old enough to give an intelligent account of their sensations, and to have the usefulness of the newly acquired sense accurately tested. So far is sight from being useful without the educated brain centers, that persons thus acquiring it at first shut their eyes when trying to find their way, to avoid confusion by the meaningless appearances that objects present to them. Normal vision is but one part in an extremely complex nerve-process, and it is only useful through that process. But to say that the eye is thus intimately connected with the nervous system is simply to say that it is connected with every portion of the body, since the nervous system is only a great system for inter communication between the different parts of the body.

Again, through countless channels the eye is each instant supplied with nutritive fluid, elaborated by extremely complex chemical changes carried on throughout a series of organs, especially devoted to the purpose; and this fluid is further influenced by the changes that occur to it in passing through every organ of the body. These wide direct

relations with other organs of the body, give to the eye, and to all that influences it, a medical significance of vast importance. The correction of an error of refraction influences greatly both the eye and the work done by it, and thus partakes of that significance and importance.

The correction of errors of refraction relieves certain symptoms. Let us consider a few of the most important of these symptoms individually. Thus, in *headache* there is not only the error of refraction, but also the morbid state produced by it, an abnormal condition, continuing at least so long as the headache lasts, of a part of the central nervous system, and, perhaps, of the nerves and tissues of the portion of the head to which the aching is referred. Headaches, similar in character, may be caused by other things than eye-strain. They may be caused by fever, by blood poisoning, by nerve exhaustion, by organic disease of the brain, as meningitis or brain tumor. And, what is still more important for our present consideration, in the majority of cases, two or more of these factors enter into the production of the headache. A certain amount of general exhaustion may exist without causing headache, but when to this eye-strain is added, the headache occurs. Such a headache may be relieved by a cup of coffee, or similar restorative; it may be prevented by the correction of an error of refraction; but in the majority of cases it is due to the combination of the two, or more, factors. Doubtless there are simple eye-headaches, where nothing else than the eye-strain is of practical importance, but such are not the rule.

Again, glasses may be given to relieve *congestion* or *inflammation* of the conjunctiva or lids. Here is a morbid condition which appears to be superficial and confined to the eye, and its immediate appendages, but it is not. Eye strain produces such redness or inflammation through a chain of nerve action influenc-

ing both the tissues concerned, and the blood-vessels that supply them. Precisely similar congestion or inflammation may be due to quite other things than eye strain, may be part of a general catarrhal tendency of the mucous membranes of the body, may be due to disease in the nose, to exposure to other unhygienic conditions or the habitual use of alcoholic beverages. As with headache, but even more frequently, it happens that inflammation about the eyes is due to one or more of these other factors combined with eye-strain. Of the rarer forms of trouble from eye-strain it is not here necessary to speak. Even more than headache and ocular inflammation are similar symptoms liable to be of extra-ocular origin.

Imperfect vision, due to imperfect focusing of light on the retina as a result of refractive error, might be supposed to be a purely ocular phenomenon, and so it is primarily. But so long as it remains an affair of the eye, pure and simple, it is of no importance to the possessor of the eye. Imperfect vision causes annoyance or limits the powers of its possessor, only as it disturbs the series of complex nerve actions which belong to the brain rather than the eye. It is this kind of disturbance for which the possessor of the eye seeks relief. So that here again not only the amount of his ametropia and the nature and constancy of the work he has to do; but also the state of the general nervous system, and the general health, come in to determine the seriousness of the effects of imperfect focusing. On the other hand, the effects of imperfect vision, and of eye-strain to secure good vision, may be felt throughout a similar wide range of morbid conditions; and may constitute a depressing influence that will effect through the nervous system the health of all the organs, and the efficiency of all kinds of mechanical or mental effort.

It will doubtless occur to you that although errors of refraction and their correction have

these wide medical relations, still it may not be necessary in order to relieve the eye-strain, to understand, and follow out all the other morbid factors with which eye-strain works to produce such effects; that if eye-strain is one factor in the production of a headache, the error of refraction to which it is due may be corrected even without any knowledge of the other factors; and if eye-strain is an essential factor, the correction of the error of refraction may give relief, although every thing else concerning the headache remains unknown. This is true. It is also true that one skilled in the physical measurements of the refraction of the eye can, with the limitations to be presently referred to, determine an error of refraction even though he be ignorant of all possible medical bearings that such an error of refraction or its correction may have.

Here I conceive we come upon the line which must sharply limit the work of the non-medical refractionist. He may, under limitations, be able to determine the error of refraction and give the glass for its correction, but as to the necessity for wearing glasses, as to the extent of the relief to be expected from glasses, as to their sufficiency to meet the needs of the person wearing them, no opinion can be of much value that is not based upon a broad knowledge of physiology, and pathology rendered practically available by clinical experience.

If John Smith has poor sight, and believes that glasses will help his sight, and has made up his mind to try the wearing of glasses, an expert optician may be able to furnish those that will correct the refractive error he may have. But, if John Smith has poor sight and wants to know why his sight is poor, and does not want to wear glasses unless they will really help him; and is most desirous to do the thing that will help his sight, whether it be wearing glasses or something else; then one who has not medical knowledge and ex-

perience is not the person for him to consult. In a considerable proportion of cases, experiments to find out whether or not glasses

will help him, will certainly result in harmful loss of time to John Smith, and harmful loss of reputation to his non-medical adviser.

(To be continued.)

A CASE OF UREMIA, WITH HIGH TEMPERATURE.

BY AUGUSTUS A. ESHNER, M.D.

Professor of Clinical Medicine in the Philadelphia Polyclinic; Physician to the Philadelphia Hospital, etc.

H. G., an unmarried female servant, 52 years old, was admitted to the Polyclinic Hospital on September 4th, in a state of coma. The only information in connection with her history that could be gained was that she had been unconscious since the day before, and that she had had an attack similar to the present one some five months previously. The pulse was somewhat accelerated (124 in the minute, reaching, however, on subsequent observations, as high as 134, and not falling below 120). The respirations, on admission, were 16 in the minute, although they subsequently rose as high as 30. The temperature was 101.4°, but it soon rose to 104.2°, in the neighborhood of which it hovered during the twelve hours preceding death. The heart-sounds were somewhat ill defined, but no murmur could be heard on auscultation. The pulmonary percussion-resonance was impaired upon both sides and moist râles could be heard in places. The pupils were approximately normal in size, the left a little larger than the right. There was general muscular relaxation, but no evidence of actual paralysis, local or general. The breathing was quiet, the cheeks flapping passively with inspiration and expiration. There was a free, purulent discharge from the vagina. At times, twitching of the muscles of the right side of the face was noticed, and at times also of the right hand and arm. On examination of the urine, which was greenish-yellow in color, slightly alkaline in reaction, with a specific gravity of 1016, reactions for sugar and albumin could not be elicited. Microscopic examination disclosed the presence of vaginal epithelium and some granular tube-casts.

Some doubt existing as to the nature of the case and with the possibility of some form of narcotic poisoning especially in view, strychnin sulfate, $\frac{1}{10}$ gr., was administered hypodermically and the stomach was freely washed out by the resident physician, Dr. Francis T.

Stewart, soon after the patient's admission into the hospital. Later in the day, as the nature of the case became more clear, the patient was put in a hot-air bath, but she did not perspire freely. Six drops of croton oil were given in divided doses, but failed to induce catharsis. In addition, tincture of digitalis and spartein sulfate were injected hypodermically, and, as a final resort, two pints of normal salt solution were introduced into the subcutaneous tissues of each mammary region. The patient, however, failed to return to consciousness and died nineteen hours after her reception into the hospital. The *post-mortem* examination was made by the coroner's physician, Dr. Morton, through whose courtesy I had the privilege of seeing the specimens.¹

The lungs were adherent, the left in a much more pronounced degree than the right. Both presented posteriorly and inferiorly considerable areas of consolidation, dependent in part upon congestion and edema and in part upon broncho-pneumonia. They also exhibited a moderate degree of pigmentation and were emphysematous at their margins. The heart was normal in size and its cavities and muscular wall exhibited no gross abnormality. It was rather freely supplied with fat. The leaflets of the several valves exhibited inconsiderable thickening, obviously insufficient to occasion appreciable functional derangement. In the cavities and in the large vessels were found a moderate amount of fibrinous clot partially decolorized. The kidneys were perhaps a little increased in size; their capsules were adherent and on removal exposed a granular surface. The normal relation between the cortex and the medullary structure appeared maintained. The cut section was pale and exhibited linear streaks of fatty degeneration. The liver was pale and exhibited

¹ Exhibited at a meeting of the Pathological Society of Philadelphia, September 9, 1897.

no other peculiarity. The spleen was small, its capsule thickened and its parenchyma marked by distinct fibrous trabeculae. The uterus was retroflexed and the seat of several small fibroid tumors, as well as of a catarrhal inflammation of its mucosa. The oviducts were normal, the ovaries sclerotic. The brain was intensely injected, but free from gross lesion.

The case is interesting, first, on account of the doubt surrounding the diagnosis. The patient was brought into the hospital comatose and under conditions that required consideration of the possibility of some form of narcotic poisoning. It is true no characteristic odor could be detected about the patient and the pupils were not contracted, but both of these signs might be wanting in an actual case of opium-poisoning. There might be no odor at all present, or this might be masked by something taken at the same time as the poison or subsequently, or possibly even previously. Then the patient might come under observation before the effect upon the pupils had become manifest, as I had an opportunity of observing recently in an undoubted case of opium poisoning.

The differentiation between uremia and cerebral hemorrhage is at times one of the most difficult problems in clinical medicine. The primary shock attending an extravasation of blood into the brain may occasion general muscular relaxation, and localizing phenomena may be wanting, while, as a matter of fact, the latter are by no means rare in cases of uremia. So, too, the presence of albumin and tube-casts in the urine is not conclusive. The conditions upon which these phenomena depend are likewise often just those that predispose to the occurrence of cerebral hemorrhage.

Finally, a word may be said concerning the presence of fever in the case here reported. It has been taught that the uremic state is usually attended with a normal or subnormal temperature, but clinical experience shows

that in a very considerable proportion of cases the temperature becomes distinctly febrile. As has been well pointed out recently by Stengel,¹ fever may occur in the course of nephritis, at the onset of an acute attack, as a result of the infection or intoxication causing the disease or of the inflammatory or degenerative lesions of the kidneys themselves; in the course of acute or chronic nephritis, as the result of various complications; and in the uremic state. The fever associated with uremia may be pronounced and sudden in onset and attended with coma, delirium and convulsions; or it may be more gradual, more lasting, less marked and associated with typhoid symptoms.

In the case here reported the inquiry suggests itself as to whether the broncho-pneumonia present was an untoward result of the use of the stomach-tube from entrance of foreign material into the bronchial tubes. The pulmonary lesion was, however, evidently of longer standing than to be thus accounted for. It is to be borne in mind, further, that the pneumonia was probably not without some influence in bringing about the elevation of temperature. A rather noteworthy feature, already referred to, was the comparative infrequency of breathing.

¹*American Journal of the Medical Sciences*, November, 1895, p. 92.

In the Clinics

DR. RIESMAN gave a demonstration before the class recently of the Widal test for typhoid fever.

A drop of blood from a patient known to have the disease, was diluted with a drop of distilled water, and a portion of this mixed with a small amount of typhoid culture by means of a platinum loop. A minute portion of the mixture was then placed upon the center of a sterile cover glass, which was inverted over a concave slide and sealed

with vaselin. It was now ready for examination as a hanging drop. Clumping began at once, and in less than ten minutes the motility of the bacteria had ceased entirely. Dr. Riesman pronounced it a positive reaction. Another drop of blood taken from a suspected case failed to give the reaction.

The tests were particularly interesting because the first case presented many unusual features. Upon the tenth day a drop of the patient's blood was examined at the City Hall Bacteriological Laboratory and gave an immediate response to the Widal test. The case has since become one of unusual severity. The second, a walking dispensary case, while presenting some symptoms analogous to typhoid fever, was diagnosed as one of auto intoxication. The test would bear out this diagnosis.

It was explained to the class that the Widal test is subject to fallacies, other diseases having responded to it. If, however, a drop of blood is diluted twenty-five times and still gives a positive reaction the diagnosis is assured.

* *

THE following case of *ulnar paralysis*, which was recently observed in the clinic for nervous diseases, under the charge of Dr. Spiller, is interesting, as showing the necessity of obtaining all the important facts in a case before making a diagnosis.

The man was a sign painter, and, of course, used lead in his work. He stated that he employed the right hand for fine work, and the left when he had large surfaces to cover. He presented distinctly a partially developed claw hand on the left side, and the ring and little fingers were more flexed than the other fingers of the same hand, except at the metacarpophalangeal articulation, where they were slightly hyperextended. Much weakness was manifested in separating and bringing together the fingers of the left hand, and

in adduction of the thumb. Sensation was decidedly affected in the distribution of the ulnar nerve on the palmar and dorsal aspects of the hand. The electric reactions were normal.

The patient stated that he had had cramps in the abdominal region, and had suffered from headache for some time.

It was natural, therefore, that a suspicion of lead as a causal factor in this case should be entertained, although the ulnar nerve is not the one usually affected by lead. The clinician, however, must always be prepared for the unexpected. It was also striking that only one hand was paretic, though this unilateral involvement is not unknown in lead palsy. No blue line could be found on the gums, but even the absence of this would not exclude the presence of lead. Further inquiries were made, in the hope of ascertaining the true etiology of the case, and it was learned that the man had only been a painter for a month. Lead palsy developing in as short a time as this, would show an extraordinary predisposition on the part of the patient. After repeated questioning, the information was elicited that the patient had struck his elbow, a few days previously, though he did not seem to consider this of any importance, even though the palsy developed a day or two later.

It was probable, therefore, that this was a case of traumatic ulnar paralysis, and, notwithstanding certain statements which seemed to indicate that the palsy was due to lead, a careful consideration of all the details made this etiology unlikely.

* *

In cases of *impetigo contagiosa*, removal of the crusts followed by inunctions of ointment of ammoniated mercury (official strength 15 grains to 1 ounce) will be found to result in rapid recovery.

THE PHILADELPHIA POLYCLINIC

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PHILADELPHIA, SEPTEMBER 25, 1897

THE REOPENING OF THE COLLEGES.

THE colleges have begun, or are about to begin anew the manufacturing of physicians. We do not belong to those who would restrict the number of persons entering the portals of the medical profession, as the trades-unions would restrict the number of persons admitted to apprenticeship in their respective occupations, in order to reduce competition. No man now practicing medicine can show a better right to the opportunity of offering his services to his fellows in the capacity of physical adviser, than can be shown by any one of the numerous aspirants for admission to college in the class of the first year. In order to hold his own in the contest the physician must utilize every opportunity for increasing and consolidating his knowledge, and perfecting his skill. As concerns those questions of environment and personal qualities other than knowledge and skill which contribute so much to help or hinder the pecuniary success of physicians, after all, the conditions are not far different from those obtaining in other vocations. They are the result of the weaknesses of human nature and of prevailing social conditions that affect all alike. These cannot be remedied by restrictive legislation of any kind—cer-

tainly not by the extension of trades-union methods over the profession.

There are, however, certain restrictions which should legitimately apply at the entrance door to the study of medicine. The qualifications for admission into medical colleges should be such that those mentally unqualified or defectively trained should not be allowed to waste their time or lower the standard of the school. Much attention has been directed to State licensing boards and other more or less artificial methods of raising the standard of medical education. Too little attention has been paid to the necessary preliminary qualifications which would render State boards superfluous. It is not literary or classical training that is needed by those intending to study medicine, desirable though the broadest literary and classical training undoubtedly is. Knowledge of history, philosophy, languages, *belles-lettres* and the like, makes a fuller, broader man, and, therefore, a better physician. But that which is indispensable and which is neglected or given merely perfunctory or nominal attention, even in many colleges which profess to have a course preliminary to medicine, is the study of the natural sciences. Physics, chemistry, and biology should be fully understood in so far as their great principles and even many of their leading facts are concerned, before the special study of medicine is entered upon. With this adequate preliminary training a three years' course in the medical school would be ample. The present four-years' course without this preliminary training is utterly insufficient, and so would a five years', six years', fifty years' course inevitably be insufficient. Let any person, having an adequate knowledge of the importance of physics and chemistry, in their relations with physiology and pathology, attend the chemical or physiologic lectures, not in the ordinary medical school, but in some whose renown extends

over both continents, and he will see how lamentably ill prepared the students must be who are supposed to receive instruction from such lectures.

Time and again in clinical lectures, the writer has found it necessary to explain elementary data of physics or biology before the principles underlying pathology, or diagnosis, or treatment could be made clear. In conversation with medical students having the degree of A.B. from American universities of international standing, he has found them crassly ignorant of elementary physical facts. Medical colleges must be made to elevate their standard here at the beginning, to require thorough acquaintance with the principles of physics and a good knowledge of at least inorganic chemistry before the student is admitted. It would be better were organic chemistry also required. Then the chemical teaching of the medical school could be confined, as it should be, to physiologic and pathologic chemistry, and the teacher of physiology would not have to lecture upon acoustics or optics before taking up the ear, the vocal organs, or the eye. Not only this, but a good working knowledge of biology should be required in order to prepare the student to understand the instruction he receives in anatomy, in physiology, and in pathology. It is probable that in this way pressure would be brought to bear upon the colleges, leading to material modification in the courses for the baccalaureate degrees. It has long been noted in Philadelphia that graduates of the Central High School are among the best equipped physicians and medical teachers. This is due to their excellent preparation in science and in English. Such preparation should be made obligatory upon all candidates for admission to medical colleges.

S. S. C.

The best investment of a dollar a year is to subscribe for THE PHILADELPHIA POLYCLINIC.

Editorial Notes

The American Medical Journalist for September is fresh and bright. The vacation has evidently been a period of recuperation.

* *

Changes in the Polyclinic Staff.—At the recent meeting of the Board of Trustees, Dr. Willits P. Haines, Jefferson, '97, was elected Resident, to serve for one year from October 1st. Dr. L. M. Vanmeter, University of Virginia, '97, was elected Externe, to fill Dr. Haines's unexpired term as externe. A new Chair of Neuro Pathology was created, and Dr. Charles W. Burr was then elected to said chair. Dr. W. G. Spiller was elected Professor of Diseases of the Nervous System. Dr. H. Augustus Wilson's resignation was received and accepted with regret, and Dr. Wilson was thereupon elected Emeritus Professor of Orthopedic Surgery. Dr. Griffith's resignation as Professor of Clinical Medicine was received and accepted with regret. The titles of the two Chairs of Diseases of the Mind and Nervous System were changed to "Professor of Diseases of the Nervous System." The Chair lately held by Dr. Wilson, was abolished.

* *

Dr. H. Augustus Wilson.—The great services which Dr. Wilson has rendered to the Polyclinic make a mere formal expression of regret at the severance of his active relations with the college quite inadequate to set forth the feelings of his colleagues in the Faculty and in the Trustees. By formal resolutions adopted and forwarded to Dr. Wilson, some attempt has been made to acquaint him with their appreciation of his work and their gratitude for it. In addition these few words of public acknowledgment may be written. It will be a satisfaction to Dr. Wilson to know not only that the institution which he did so much to upbuild is now established upon a solid financial basis as well as constantly increasing its professional repute, but also that the Orthopedic Department, with which he was especially connected, is left in capable hands.

Current Literature

REPORT ON OBSTETRICS.

By E. P. DAVIS, M.D., and W. H. WELLS, M.D.

The Causation and Treatment of Secondary Puerperal Hemorrhage.—A. Routh (*British Medical Journal*, October 24, 1896). There are two chief varieties of this trouble, the concealed and the external hemorrhage. As causes there are: uterine inertia suddenly induced by emotion or fright; partial detachment of a piece of retained placenta; detachment of thrombi. Ergot administered before the birth of the child may lead to irregular contractions of the uterus and concealed hemorrhage. In the concealed variety the hand should be introduced into the uterine cavity, all clots removed and ergot given hypodermically together with hot uterine irrigations. External hemorrhage requires curetment followed by packing the uterine cavity with aseptic gauze.

[E. P. Davis, after carefully observing all prophylactic measures, and in spite of these the condition developing, employs massage of the uterus, an intra-uterine douche of hot sterile water, manual removal of blood clots or retained placenta, followed by tamponing the uterus, its reposition with the fundus above the pelvic brim and ante-flexed, strychnin hypodermically, ergot by the mouth, subcutaneous injections of salt solution followed by enemata of water and whisky.]

Intussusception in an Infant, Six Months Old.—W. F. Cheney (*Medical News*, June, 1897). The case was that of a healthy child, seized suddenly with an attack of crying, although previously playful and contented all day. He cried incessantly for nearly two hours, after which he vomited freely, all food was refused, save a little milk which was immediately ejected. The nausea, vomiting and whimpering continued until the following day, when he had a peculiar passage consisting of a small amount of blood, considerable water and some flakes of mucus, but no fecal matter. The following day he had a second bloody passage, followed by a third; the infant was now in collapse and died shortly afterwards. At the autopsy the ileum was found pushed downward into the cæcum through the ileo-cæcal valve, for three inches, and so firmly caught there that considerable

force was required to release it. The interesting feature of the case was its resemblance to an attack of acute gastric indigestion. The sudden onset with pain, followed by vomiting and refusal of food, the elevation of temperature and the rapid pulse, all occurring during a spell of extremely hot weather, and the absence of any tumor on palpative or digital examination of the rectum. Intussusception is not infrequent in infancy. Of all cases occurring under ten years of age, one half occur between the fourth and ninth months; due to the fact that the walls of the intestine are thin and flaccid, and its mesentery flabby, allowing more motion than in adult life; the ingestion of indigestible food acting as an irritant, sets up unusual peristaltic waves and thus causes the condition. The typical and diagnostic symptom is the passage from the bowels of bloody liquid, and mucus containing no fecal matter. The treatment is first, mechanical, by pressure from below, and, failing in this, celiotomy. The mechanical method is as follows: the child is anesthetized, the hips elevated to an angle of forty-five degrees, the syringe bag is elevated five feet, causing a pressure of two pounds to the square inch; this pressure is kept up for 20 to 30 minutes, the water being retained in the bowl by pressing the soft parts tightly around the nozzle. If unsuccessful the injection should be repeated in an hour.

Condensed Milk in Infant Feeding.—C. G. Kerley (*Medical News*, June, 1897, p. 736). The author calls attention to the difference existing between the composition of breast milk with a $3\frac{1}{2}$ to 4 per cent. of fats, a 7 per cent. of sugar, and a 2 per cent. of proteids, and condensed milk which is usually administered in a one-in-twelve dilution giving a 0.5 per cent. of fats, a 4 per cent. of sugar and a 0.6 per cent. of proteids. The deficiency of fat may be made up by the addition of cream, in the poorer patients by administering cod-liver oil after feeding. The proportion of proteids by the addition of the condensed milk to a meat broth; by boiling a pound of lean beef in a quart of water until the liquid is reduced to a pint, this broth contains 0.8 per cent. of proteids. One part of condensed milk added to twelve of the broth makes a mixture of 0.5 per cent. of fats, 4 per cent. sugar and 1.4 per cent. of proteids, this with the addition of cod-liver

oil to the diet to bring up the fats, answers very well for an infant three months of age. At six months the proportion should be one part of condensed milk to nine of broth, giving a 0.75 per cent. of fat, a 5 per cent. of sugar and 1.7 per cent. of proteids, this does until the age of nine months, when some of the proprietary infant foods may be substituted. His opinions in brief are: (1) In the artificial feeding of infants always determine as accurately as possible the percentage of the food constituents. (2) Condensed milk alone is an indifferent substitute for mother's milk, no matter what the age of the infant may be. (3) Condensed milk alone should not be given after the third month. (4) Condensed milk, fortified, may be made an acceptable diet for infants; alone, it is a food upon which a certain number of children exist until age or a changed condition allows of a better diet; and inasmuch as there is nothing to take its place among the very poor its value to them is inestimable.

Manual Rectification of Faulty Head Positions.—Fry (*American Journal of Obstetrics*, March, 1897). Especial stress is laid upon cases of occipital posterior and other faulty head positions when the woman is suffering from impaired vitality, or chronic disease, in which a prolonged second stage with forcible contractions is much to be dreaded. In all cases one should anesthetize the patient, and place her in position on the edge of the bed with thighs and legs flexed. All aseptic and antiseptic precautions being carefully observed, the hand is introduced in the absence of a contraction. All manipulations above the pelvic brim must be performed in the intervals between the contractions, those in the pelvis or at the outlet during a contraction. (1) When above the brim or slightly engaged: In occipito posterior positions the head should be raised by upward pressure on the forehead, which also causes flexion, then grasped and rotated forwards. In cases with small heads and roomy pelvis it is sometimes possible to change occipito-posterior into mento-anterior, and mento-posterior into occipito-anterior positions. Brow and transverse presentations are treated on the same principle. Face presentations are changed by raising the head, pushing up the forehead and drawing down the occiput. (2) When within the pelvis: Occipito-pos-

terior or face presentations, by the aid of anesthesia and posture, either the knee chest or Trendelenburg position, may be disengaged and treated the same as when above the pelvic brim. In desperate case, symphyseotomy is advised, to allow room for the necessary manœuvres to change it into a vertex-position. (3) When at the outlet: Manipulations are the same as when well down in the pelvic cavity, though with much greater hope of success.

The Treatment of Ovarian Tumors during Pregnancy, Labor and the Puerperium.—

Hohl (*Archiv für Gynäkologie*, lii, p. 2). Five cases of this condition are reported by the author, his method of treatment being in brief as follows: (1) During pregnancy, ovariectomy should, if possible, be performed in the early months. Premature labors should be favorably considered only, in intraligamentous tumors, when operation is presumably difficult, or in tumors fixed by adhesions. Puncture of the cyst as a therapeutic measure is out of the question. (2) During labor, the reposition of the tumor under anesthesia should, if possible, be done. Failing in this, cystic tumors should be aspirated or they may be opened after vaginal incision. Cesarean section is indicated in solid tumors when the child is alive, ovariectomy at a primary operation or after the puerperium. The performance of ovariectomy and the termination of labor per vaginam is not permissible. (3) After a woman has been delivered while having an ovarian tumor, the extirpation of the tumor should be performed at the earliest time possible, certainly not later than the second week of the puerperium.

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THE PHILADELPHIA POLYCLINIC

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OPERATIVE SURGERY AT THE PHILADELPHIA POLYCLINIC, FROM MAY 1, 1896, TO SEPTEMBER 1, 1897.

BY FRANCIS T. STEWART, M.D.

Late Resident Surgeon to the Polyclinic Hospital; Resident to the Pennsylvania Hospital.

DURING the sixteen months from May 1, 1896, to September 1, 1897, there were performed in the Polyclinic Hospital 764 operations requiring general anesthesia. Of these, 484 were house cases; the remaining were sent home after the effects of the anesthetic had passed away. Only 337 cases are here tabulated; those not recorded are either minor operations in which death could not occur except from the anesthetic and present no unusual features, or are eye, ear, and nose cases, which are studied, not by the general surgeon, but by the respective specialists.

The number of deaths in the same period was 21, three due to operation, and 18 wholly or chiefly independent of any operative procedure. Two of the three deaths due to operation occurred within twenty-four hours, and were due to shock; the third occurred on the table, and was the result of the effects of the anesthetic and operative shock on a much weakened physical constitution. Five deaths were due to shock and peritonitis, the latter existing previous to operation; 2 to shock after relieving strangulated hernia; 2 to diabetic coma and sepsis; 1 to meningitis, for which the operation was, in part, done; 1 to broncho pneumonia and sepsis following evacuation of a retropharyngeal abscess, and 1 to cerebral laceration and hemorrhage; these all occurred within twenty-four hours of the time of operation. Two deaths on the second day were due to septicemia, with which the

patients suffered when admitted; 1 on the third day to a previously existing broncho-pneumonia; 1 on the fourth day to sudden collapse; 1 on the fifth day to sarcomatosis; and 1 on the twelfth day to pyemia and exhaustion following a railroad crush of the leg.

The technic at the Polyclinic varies somewhat according to the individual surgeon, but, in general, it may be summarized as follows: On admission the history is carefully noted, and the heart, lungs, and urine examined. The preparatory period extends preferably over two days, during which time the patient is purged, put on a diet free from vegetables, and rendered as clean as possible by means of a daily soap and water bath, followed by a sponge bath of corrosive sublimate (1-4000). On the second of the preparatory days the operative field is shaved, except in gynecologic cases, scrubbed with soap and water, alcohol, and finally with mercuric chlorid (1-1000), after which a moist bichlorid (1-1000) poultice is applied and allowed to remain until the following morning, when the whole procedure is repeated. The process is again repeated after the patient is anesthetized. On the day of operation six ounces of broth are given early in the morning, and an enema is invariably administered to cleanse the lower bowel so that it shall be susceptible of imbibing any stimulating or nutritive fluids that may be injected into it.

Ether is used in all cases excepting those

which present pulmonary or renal complications. In alcoholics and in those who take ether badly, oxygen is combined with it. Hemorrhage is promptly checked as the vessels are divided, all unnecessary mutilation is avoided, and irrigation is freely utilized. Within the abdomen silk is employed for suture and ligature; catgut supplies ligature for other portions of the body; and whenever sutures are subsequently to be removed, silkworm-gut is chosen.

Rest is considered all important after operation, to militate against shock and to secure rapid union. After celiotomy the bowels move the second day from calomel and salines; the sutures are removed at the end of the first week; the patient sits up at the termination of the second week and, at the completion of the third week, goes home.

The surgeon's hands are antiseptised by the Fürbringer or by the Kelly method, the latter being preferred if the hands have but recently been in contact with pus.

The instruments and silkworm-gut are sterilized by boiling; the silk by the fractional method; the catgut, after due preparation, by boiling in alcohol; and all gowns, sheets, towels, gauze, sponges, and dressings by moist heat.

ABDOMINAL SECTIONS.

A. DISEASES OF UTERUS AND APPENDAGES.

	Cases.	Recoveries.	Deaths.
Hysteropexia	7	7	0
Abdominal hysterectomies . . .	15	12	3
Vaginal hysterectomies . . .	2	2	0
Salpingitis	34	31	1
Papillary cysts	4	4	0
Ectopic gestation	1	1	0
Dermoid of broad ligament . . .	1	1	0
Pelvic adhesions	2	2	0
Total	66	62	4

In fixing the uterus to the abdominal wall

the lower two of the three sutures which close the incision are made to pass through the uterus; the lowest suture catches the uterine tissue between the tubes, the second suture passes through the fundus one quarter inch further back. The sutures are removed at the end of the second week. Two of the above cases were combined with perineorrhaphy.

The abdominal hysterectomies were all done supravaginally after the method formulated by Baer, in which the cardinal principles are: control of hemorrhage by ligatures in the broad ligament (usually two on each side); non-constriction of the cervical tissue so that there shall be no cause for suppuration; non-disturbance of the cervical canal, so that sepsis from the vagina may be prevented; and the avoidance of all unnecessary drainage and all unnecessary sutures in the pelvis, the peritoneal flaps covering the cervix being sutured only when they do not readily approximate, which approximation is the other function of the ligature encircling the uterine artery. The uterine artery is always felt before being tied; and when, as sometimes happens, hemorrhage from a large branch of the uterine occurs, the vessel is grasped with a hemostat and tied; or is ligatured by passing a Deschamp's needle through the broad ligament as far as the vaginal coats. Drainage was omitted except in a case of cancer with pyosalpinx.

One of the deaths after hysterectomy was due to a vicious combination of circumstances. The patient previous to operation, the removal of a large fibroma, was in a very weak condition and the urine contained albumin and casts; she took ether very badly indeed and chloroform was substituted. In the middle of the operation respiration showed signs of flagging, but it was then too late to retreat, so the uterus was rapidly excised and the belly closed. Respiration ceased a few minutes later and could not be induced to commence again. The second

death occurred on the fourth day from collapse; the bowels had moved, the patient was on light diet, and until a few hours before death seemed in very satisfactory condition. The peritoneum was found to be smooth and transparent, and neither serum, pus, nor adhesions could be demonstrated. The third death following hysterectomy was due to shock and occurred fourteen hours after operation.

Both vaginal hysterectomies were done for cancer: in one the clamps were used, in the other ligatures served to secure the arteries in the broad ligaments.

Drainage is almost invariably omitted in cases of pyosalpingitis even when the tubes are ruptured during delivery in which instance the pus is caught in sponges and the abdomen flushed with sterile water. The patients were discharged at the end of three weeks without any complications, save in one or two cases a stitch hole abscess. In one case after the belly wall had been divided

the abscess sac was found to have so many and such dense adhesions that the pus was evacuated per vaginam and the original incision closed. After operation this patient, although relieved of the more acute symptoms, continued to suffer from pain and fever: in six weeks she returned to have the abscess cavity removed, and is now convalescing from the latter operation.

The death recorded under salpingitis occurred on the second day and was due to general peritonitis which was found at the time of operation.

The operations for proliferating papillary cysts were all very difficult, the adhesions being so numerous and so infiltrating that entire removal could not be effected; and in one instance the bleeding became so general and so persistent, that iodoform gauze was packed tightly into the abdomen and allowed to remain for five days. Three of these patients have died from recurrences since leaving the hospital.

(To be continued.)

THE MEDICAL RELATIONS OF THE CORRECTION OF ERRORS OF REFRACTION.¹

BY EDWARD JACKSON, A.M., M.D.

Professor of Diseases of the Eye in the Philadelphia Polyclinic; Surgeon to Wills' Eye Hospital.

(Concluded from page 392, Vol. vi, No. 39)

I know that every intelligent optician who fits glasses to those who will not seek medical advice as to the symptoms that arise from eye-strain, feels the need for some way of deciding whether the person that comes to him will be relieved by the correction of refractive errors, or whether he properly needs other treatment. I know that conscientious opticians insist that those who to them seem to need something beyond the correction of ametropia will consult some oculist; and I know that some of you are seeking to extend your knowledge in the direction of the study of diseases of the eye with the ophthalmoscope, and in other ways, with the hope that you will be thus better

fitted to decide what cases should be referred to the ophthalmic surgeon, and what cases belong in what you regard as your own proper province. It is, perhaps, my most important duty on this occasion to say, that your efforts in this direction are doomed to failure, your hopes to disappointment. It seems very plausible to say: "If we can only recognize ocular diseases, and refer to the ophthalmologists all cases of disease, we can fit the other cases with glasses, with credit to ourselves and benefit to our clients." But there is a false premise concealed, as it very often is, in the "if."

The quack had a very shrewd understanding of the situation, who said that all he

¹ Read before the Optical Society of Pennsylvania, September 14, 1897.

wanted was a book that would tell him what the disease was; that he had one that would tell him what to do for every disease when he had recognized it. Nothing short of a good medical training will justify one in attempting that first step in diagnosis, the determination as to whether a given organ is diseased or healthy; for that first step is often extremely difficult. There are cases of most diseases which any one can recognize without special knowledge. The patient recognizes the disease himself, or at least that there is disease, and acts accordingly. But there are other cases, in which the widest knowledge and experience are required to determine whether we have to deal with health, or a trifling disorder, or the most serious organic disease.

Take, for instance, a case of commencing glaucoma, when, by its prompt recognition and proper treatment, the eye may be saved with perfect vision. There will usually be no positive symptoms revealed by the ophthalmoscope, or by any sort of inspection. The history of the case, and certain points in the general appearance of the eye may raise a suspicion of the impending danger; but only careful watching and testing can determine whether the eye is really perfectly sound, or is entering upon this most dangerous disease. In commencing optic atrophy it is often impossible to tell with the ophthalmoscope if this condition is really present or not. The toxic amblyopia caused by the use of tobacco and alcoholic beverages is never recognizable with the ophthalmoscope, until a late stage, when the chances for cure are comparatively small; whereas, if recognized early and promptly treated, the full restoration of sight is almost certain. It is often impossible to tell by the most careful and skillful ophthalmoscopic examination, whether a certain condition of the optic nerve, a commencing optic neuritis, is due to eye-strain, or is a symptom of organic

disease of the brain. A general knowledge of physiology and medicine is absolutely essential to make the proper discrimination.

The hope that the "refracting optician" will be able to recognize when he has to do with a case requiring simply the correction of an error of refraction, and when the case will require other medical or surgical treatment, seductive as it may be, is entirely illusory. I know this idea will be a surprise to some of you. I know it would surprise that part of the general public that comes to the optician, hoping to get an expert medical opinion for nothing, or for the chance of selling a pair of glasses. But it is perfectly understood by every one who knows the difficulties that beset a medical diagnosis. And the tone assumed by members of my profession on this matter, though it may often be needlessly offensive, is not due to jealousy or alarm at losing patients, but simply to a thorough conviction of the falsity of all such hopes and all such promises on the part of the optician.

Some of you will ask, would I discourage all attempts on the part of the optician to extend his knowledge and give better service to his patrons? By no means. But I would decidedly discourage any false hope in this direction, of an intelligent discrimination on the part of the optician between cases that require medical treatment and those that do not. The opinion that a person is sound, or is diseased, is a strictly medical opinion and of value simply as it is based on the conscientious application of adequate medical knowledge. Military authorities, sound life insurance companies, and railroad and other corporations, to whom such an opinion is of importance, recognize this fact by paying for the services of an expert. The farther the optician keeps away from even the appearance of giving such an opinion, the more secure will be his reputation, for knowing what

he has assumed to know, for understanding his business.

Unless you propose to study medicine in all its branches, and to practice its plan of repeated visits, prolonged examinations, searching inquiries into personal and family history, and careful comparison of cases, study for six months or six years with the ophthalmoscope will be of trifling value to you in this connection. You have in the trial-set, in the pin-hole disk, the best possible test to distinguish between imperfect vision due to errors of refraction, and imperfect vision due to other causes. When it comes to passing upon symptoms other than imperfect vision, even upon the common headache or redness of the eyes, the less you assume the rôle of a diagnostician the better for yourselves as well as for your patrons. I am speaking thus to honest men who are seeking to get a living by giving real service to the community, who expect to build up a solid business that will last through their lives, and not to those who hope through false pretense to gather in the money of the foolish, and as the falsity is discovered, disappear to "fresh fields and pastures new."

Of course here, as elsewhere, pretense may pass for worth until its falsity is discovered; and with a large part of the community satisfied that it has the shrewdness to get something for nothing, the promise of a medical diagnosis for nothing will find many to accept it.

The permanent limitations under which the optician must work in correcting errors of refraction are, as I understand them, these:

First, he cannot use mydriatics, and up to the age when the power of accommodation is almost lost, the use of a mydriatic is necessary to give certainty and exactness to the determination of the ocular refraction in the mass of cases.

Second, there are limitations imposed

by the expectations of his patrons, and his own command of time, in the matter of repeated and thorough testing. These are somewhat under individual control. But it is probable that so long as the optician cannot undertake to cover the ground covered by the ophthalmologist and give an opinion having the same significance, those who come to him will be less willing to submit to prolonged and repeated examinations, for the purpose of settling doubtful points; and on this account the mass of his work will not be of the highest grade.

I see no reason why any or all of the standard methods for the measurement of refraction should not be resorted to by any one who attempts to determine the refraction of the eye. But this is quite apart from the question of whether it is worth one's while to give much time and effort to acquiring facility in certain methods of examination, when the usefulness of such methods will be curtailed by inability to carry out investigation on closely related lines. In other words, whether it is worth while for the optician to perfect himself in skiascopy and the use of the keratometer while not making the more complete preparation for his work by obtaining the full medical education.

To me it seems that the correction of errors of refraction has such wide medical relations that ultimately it will be in the hands of those who have received the complete medical education. As was mentioned in the outset, we are in a transition stage. It has been, for a change of custom, but a short time since he who needed glasses chose them for himself, with such help, or hindrance, as the vendor of glasses might give. A great many people possess that cast of mind which regards the fact that our fathers did a certain thing as a sufficient reason why we should continue to do it; and to these it will long seem quite too revolutionary to get a doctor's prescription when they want to

buy a pair of glasses. Even after a century of pretty distinct separation of physician and apothecary a great deal of counter prescribing still goes on. So there is no likelihood that in the immediate future the "refracting optician" will not find employment, and opportunity to do his best work.

I believe, however, that in this, as in other matters, honest and skillful medical advice is worth what it costs, and that the commu-

nity will gradually come, not by the compulsion of legislative enactment, but by reason and experience, to appreciate the importance of the medical relations of the correction of errors of refraction. It is to urge this view, with the reasons for it, and with the hope of avoiding misunderstanding and opposition between doctors and opticians, who should co-operate, that I have addressed you this evening.

A FOREIGN BODY IN THE EAR.

BY CHARLES H. BURNETT, M.D.

Emeritus Professor of Diseases of the Ear, Philadelphia Polyclinic.

On Sunday, September 19, 1897, a little girl of five was brought to my house in Bryn Mawr by her mother, who stated that the child had told her that a playmate three years old had, a few days before, put a "cherry" into her left ear, and that it was still there. Upon examination of the ear with ear-funnel and hand mirror, a dark, purplish brown body was seen lying in the auditory canal just beyond the reach of the fingers and cutting off the membrana from sight.

As the child would permit no further manipulation of the occluded ear, and as any interference with the foreign body under such circumstances of non-co-operation would result in failure to extract the foreign body and surely injure the ear, it was decided to etherize the child the next day and remove the foreign body from the ear.

The ear was entirely free from irritation, the child complained of no discomfort, and the hearing appeared normal.

In such cases as this there is no hurry, though an inanimate foreign substance should not be permitted to remain in the ear indefinitely. The real danger, however, lies in improper, *i. e.*, irritative efforts at removal of the foreign object from the ear. Such a substance had better remain in the ear indefinitely than subject the ear to rough treatment. Death has not infrequently resulted from the irritation set up by rough efforts at extraction of the substance from the ear, and in some instances the foreign body has been pushed further inwards, even into the cranial cavity.

Unfortunately the general practitioner is not prepared, as a rule, to remove a foreign body from the ear, and the Germans say the best he can do in most cases is to refrain from endeavoring to remove a foreign body from the ear, and if possible, send the patient to an expert.

The little patient just alluded to was seen first by Dr. Gamble, Assistant Physician in charge of the Bryn Mawr Hospital, who recognizing the condition of the ear sent the child to me. On Monday, September 20th, the child was etherized by Dr. Gamble in the Hospital, and I removed with a delicate hook, not a wild cherry, but a little ball of rolled leaf, which, under the microscope, proved to be a piece of faded maple leaf, about a square inch in area.

The membrana was entirely normal; the manubrium slightly congested. The next day the entire membrana was absolutely normal in appearance.

In the London Hospitals, provided with aurists, the rules forbid an interne to make endeavors to remove foreign bodies from the ear. When such endeavors are demanded the aurist of the hospital must be summoned.

For the want of such a rule, the writer knows of a case in one of our own hospitals, in which a resident physician scooped entirely out the membrana tympani, and the two largest ossicles, in his endeavor to remove a foreign body said to be in the ear. Such a substance, however, was not found in the ear, but the organ was destroyed by ignorant manipulations.

THE PHILADELPHIA POLYCLINIC

Brief, practical, original articles, and news of general professional interest are solicited for publication in this journal. Contributions accepted will be paid for on publication, or, if desired, and so indicated on the manuscript, 250 reprints will be furnished in lieu of other compensation.

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THE EDITOR OF THE PHILADELPHIA POLYCLINIC,
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PHILADELPHIA POLYCLINIC,
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PHILADELPHIA, OCTOBER 2, 1897

THE SESSION OF 1897-8.

THE Philadelphia Polyclinic and College for Graduates in Medicine begins this week the session of 1897-8. The temporary interruption in the increase of its pupils, due to the political excitement and unfortunate industrial situation of last year, has been followed by the expected gain. The facilities of the institution for teaching have been continuously enlarged; among the departments most recently added and worthy of special note, being Neuropathology and Anatomy in the Laboratory Courses, and Defects of Speech in the Clinical Courses. Changes in the Faculty have removed some teachers who will be missed, but the teachers chosen to fill their places are thoroughly equipped, active and enterprising, and will beyond doubt maintain and extend the reputation of their respective departments.

The Philadelphia Polyclinic has always made a point of imparting personal, individual instruction to the members of its classes. These do not simply listen from the benches to clinical lectures, or observe from a safe distance the performance of an operation, but they are severally and personally brought into actual contact with patients, examining, diagnosing, and, when possible, charged with the treatment,

general or local. Thus they learn to handle instruments of precision in diagnosis, to understand the clinical significance of the microscope, to test the contents of the stomach, to use the ophthalmoscope with knowledge and confidence, to do refractive work, to examine and operate upon the nose, throat and ear, to make gynecologic examinations and applications, to perform or to assist in performing such operations in general and special surgery as their knowledge and progress permit their being entrusted with, and so on throughout the various departments. The school is a real school, bringing pupils into direct personal contact with teachers, and giving them full opportunities to study and to learn.

Of the laboratories, it may be said that the Roentgen-ray department is not surpassed by any in Europe or in America in the excellence of its work and that the equipment of the anatomic and surgical laboratories is complete; it being a pleasure to work in the light, airy, odorless rooms upon the finely injected subjects provided. The courses in anatomy, in general operative surgery, in cerebral surgery, and in abdominal and pelvic surgery, are thorough and are adapted to the pupil's needs. The pathologic and bacteriologic departments are being reorganized and will offer better facilities than in the past.

Altogether, the Trustees and Faculty believe they have provided for those who wish to learn, facilities both clinical and laboratory, which are fully equal to the exacting requirements of modern medicine, and the large number of physicians already in attendance is gratifying evidence that the work of the school is duly appreciated. For those who wish to see and judge this work before matriculating or before choosing the special courses they will attend, a complimentary ticket is issued, good for all the departments for two days.

Editorial Notes

Dr. J. William McConnell, formerly instructor, has been appointed Associate in Neurology in the clinic of Professor Mills.

The Twenty-third Annual Meeting of the Mississippi Valley Medical Association.—

At Louisville, Ky., beginning October 5th, this influential association will hold a four days' session, under the presidency of Dr. Thos. Hunt Stucky. Dr. H. Horace Grant is chairman of the Committee of Arrangements, which has been active in its preparations for the comfort and success of the convention. The annual address will be delivered by Dr. John V. Shoemaker, of Philadelphia.

The fame of Louisville as a medical center, the high reputation of its schools, from which teachers who have given renown to the elder colleges of the Northeast have been drawn, the traditions left by the great teachers, the Yandells and others, who have declined temptations to other cities, and the deserved esteem in which the members of the medical profession of Louisville are held by the physicians of the country, make that city an ideal place for a medical convention, and give promise that this will be among the most successful gatherings of the physicians of the Mississippi Valley. Add to these, the excellent scientific program that has been announced, the well-known hospitality of Kentucky, the courtesy of its men and the beauty of its women, and one can be assured that the social features of the meeting will be no less delightful than the scientific work is useful.

The Laboratory

Under the Editorial Charge of **Henry Löffmann**.

Detection of Coloring Matter of Bile in the Urine.—A brief extract in a recent num-

ber of the *American Medico-Surgical Journal* describes a new process for detection of bile coloring-matter in the urine. It is credited to Rasmussen in the *Hospitals-Tidende*, but I have not seen the original article. The method is as follows:

One cubic centimeter of urine is mixed with the same quantity of ether; to this is added six minims of tincture of iodine and the mixture is well shaken. Upon standing the liquid soon forms into two strata; above is the ether with the iodine; below is the urine which remains unchanged when no bile is present, but takes a brilliant green when biliverdin is present.

Attempts to test the method by using solutions of dried ox-gall (*Fel Bovis*, U. S. P.) in water and urine failed entirely, but Dr. Amelia A. Dranga obtained for me a sample of urine from a patient presenting deep jaundice and this gave the test excellently. The sample was deep brown in color, but when treated as described in the test the brown color passed into the ethereal layer and left the watery portion of a distinct green color. I did not find it necessary to follow the directions closely. The reaction was quite well obtained by using, instead of the tincture, a few drops of the watery solution of iodine and potassium iodide. This solution is more widely applicable as a test than the tincture and is found in every clinical and pathologic laboratory. Sufficient ether must be added to ensure the separation of an ethereal layer which will, of course, float on the water layer.

Chloroform and carbon disulfide were tried as substitutes for ether but do not answer as well, principally because they do not take up the unchanged brown color. Chloroform added to the samples in small quantity as a preservative does not interfere with the reaction.

In the Clinics

In the case of a girl twenty years old, with *angio-neurotic edema* of the lower lip, Dr. Eshner prescribed picrotoxin, $\frac{1}{16}$ grain, together with a pill containing one grain each of zinc, quinine and iron valerianate, thrice daily.

DR. E. A. HELLER reports that *tinea circinata of the concentric variety*, presenting two and three rings within each other, has been frequently observed of late in the clinic of Dr. Cantrell. The treatment is the same as that employed for the single ring variety and equally satisfactory.

* *

DR. S. SOLIS-COHEN frequently prescribes the *fluid extract of quebracho* in the treatment of asthma, whether of the bronchial or purely spasmodic variety. The dose is from 30 minims to a fluidram, and may be repeated hourly or less frequently, according to circumstances. When the stomach is irritable it should be given in a bland vehicle, or some liquid preparation of pepsin. It acts promptly or not at all. Unless relief is experienced within 48 hours it should be discontinued. When useful it may be continued in combination with an antispasmodic, such as *sodium nitrite*, with a sedative like *strontium bromid*, or with an *ammonium salt* or other *expectorant*.

* *

EHRlich's *diaso test for typhoid fever* was the subject of an interesting talk and demonstration given by Dr. Riesman.

Two solutions are used, which should always be freshly prepared. The following formula was given:

- (a) HCl 5
 Water 95
 Sulfanilic acid to saturation.
- (b) Sodium nitrite . . 0.5 per cent.

To 40 parts of *a*, and 1 part of *b* mixed in a test-tube, an equal volume of urine is added, and the whole thoroughly agitated. A quantity of ammonia water is then allowed to run down the side of the test-tube from a pipette, until it forms a layer on top. If the aromatic compounds upon which this reaction depends are present, a brilliant garnet ring is formed at the junction of the

two. The contents of the tube is then thoroughly shaken, when the froth becomes a beautiful rose color.

The urine used to demonstrate the test, was from a patient known to have typhoid fever, and it responded unmistakably.

A control test was made with an unknown sample of urine. It failed to react. The ring formed was an indefinite red, and the froth was yellow. Clinicians lay special stress upon the rose-colored froth, which is characteristic. One may get the garnet ring, but not the froth, and it would, therefore, not be a perfect test. Other conditions giving the reaction, are, advanced tuberculosis, advanced malignant disease, septicemia; it is apt to be present in measles, it is rarely observed in croupous pneumonia, and it is sometimes seen in acute articular rheumatism. This does not, however, make it valueless, as its presence may mean one of the above-named conditions and typhoid fever be excluded. It is *always* present in typhoid fever.

* *

DR. YOUNG showed the value of dietetic and hygienic treatment in a recent case of *acute rickets*. The use of modified milk with excess of fat from the Walker-Gordon laboratory, together with a modified diet, a salt-bath in the morning, and an oil rub at night, caused an immediate disappearance of all the acute symptoms within forty-eight hours. The temperature also fell to normal and remained so. The early recognition of acute rickets and its proper treatment cannot be too strongly emphasized.



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Extracts from the Fifteenth Annual Announcement

OF THE

Philadelphia Polyclinic and College for Graduates in Medicine

GENERAL INFORMATION

The Philadelphia Polyclinic and College for Graduates in Medicine was organized in December, 1882, and opened for clinical work and teaching early in 1883. It has steadily extended its facilities and opportunities for practical work, until now it has entered upon its fifteenth year with a corps of fifty professors, lecturers and adjunct professors and thirty-one instructors, hospital and laboratory buildings of modern construction and fully equipped, and including a *Röntgen-Ray Department*, the work of which is unexcelled; while in addition to its own dispensary services aggregating 18,000 new cases per annum, the clinical advantages of nearly all the hospitals of Philadelphia may be utilized by its pupils. Although its classes continue to increase, it still makes a feature of offering the *direct personal instruction* and full opportunities for actual clinical work that have been so highly valued by its former pupils.

Thus the Polyclinic opens to all graduates in medicine its facilities for acquiring a practical acquaintance with the clinical aspects of disease and the diagnostic procedures and methods of treatment in general medicine and surgery that were formerly attainable only by those who held positions as resident physicians in the larger hospitals; and in the special branches, like gynecology and diseases of the eye, ear, nose and throat, the opportunities which it offers have never before been generally attainable, and are unsurpassed anywhere in this country or in Europe. The members of its limited classes *personally examine* cases of disease and employ the instruments of precision in diagnosis and treatment, participating in the actual work of the clinic and the laboratory.

Economy of Time.—Courses may begin at any date, and the hours for instruction in the various departments have been arranged with a view to enable the pupil, whether he takes a single branch or many, to make the fullest possible use of his time. The total amount of work offered is many times that which can be undertaken by any one person at one time; so that there is much room for choice to meet the needs of each as to time and subjects.

The **General Schedule** (pp. 16, 17) shows 110 hours of work daily at the Polyclinic itself, and the **Special Schedules** (pp. 18-22) aggregate many times this amount.

The **Situation of the Hospital** is central, almost equidistant from the University of Pennsylvania, the Jefferson Medical College, and the Medico-Chirurgical College—easily accessible from all directions, and near to such valuable special institutions as the Children's, Rush Consumption, Wills' Eye and Orthopedic Hospitals, and to the great Library and Mütter Museum of the College of Physicians.

On reaching the city, physicians should come directly to the Polyclinic, where information as to boarding places will be furnished. Board can be obtained from \$4.50 per week upwards. The Clerk will furnish applicants with a list of boarding houses.

FEEES.

The following fees are for tickets issued during the period covered by the regular winter session, from October 1st to June 15th.

Tickets are generally issued for courses of six consecutive weeks. When the physician-pupil can attend but one day in the week, the period is extended

to three months. If for good cause a pupil is called home from his teaching, he is credited with the unexpired period, and this may be taken at any future time.

For the Clinical Courses, tickets are issued as desired—(1) for the teaching of any individual Professor; or, (2) for all the teaching in any one branch, as Medicine, Surgery, Ophthalmology, Gynecology, etc.; or, (3) for a combination of two or more branches, as General and Orthopedic Surgery, Diseases of the Chest and General Medicine, Eye, Ear, Nose and Throat, Obstetrics and Diseases of Children, etc.; or, (4) for all the Clinical Courses—a general ticket.

For the teaching of any one Professor, or for all the teaching in branches in which there is but one Professor, the fee is \$15.00. The fees for separate and combination tickets are shown in the following table:

FEEs FOR THE CLINICAL COURSES.

	For Six Weeks.	For Twelve Weeks.
Clinical Medicine [and Therapeutics] (any Professor)	\$15 00	\$25 00
Clinical Medicine [and Therapeutics] (all teachers)	25 00	45 00
Diseases of the Chest (either Professor)	15 00	25 00
Diseases of the Chest (all teachers)	25 00	45 00
Diseases of the Stomach	15 00	25 00
Clinical Medicine, Therapeutics, Diseases of the Chest and Diseases of the Stomach (all teachers)	40 00	70 00
Clinical Surgery (any Professor)	15 00	25 00
Surgery, General and Orthopedic (all Professors)	35 00	60 00
Diseases of the Rectum	15 00	25 00
Genito-Urinary Surgery (either Professor)	15 00	25 00
Genito-Urinary Surgery (all teachers)	35 00	60 00
Diseases of Women (any Professor)	15 00	25 00
Diseases of Women (all teachers)	35 00	60 00
Obstetrics	15 00	25 00
Diseases of Children	15 00	25 00
Obstetrics and Diseases of Children	25 00	45 00
Diseases of the Ear (either Professor)	15 00	25 00
Diseases of the Ear (entire teaching)	30 00	50 00
Diseases of the Eye (any Professor)	15 00	25 00
Diseases of the Eye (all teachers)	35 00	60 00
Diseases of the Throat and Nose (any Professor)	15 00	25 00
Diseases of the Throat and Nose (entire teaching)	35 00	60 00
Diseases of the Skin	15 00	25 00
Diseases of the Mind and Nervous System (either Professor)	15 00	25 00
Diseases of the Mind and Nervous System (all teaching)	25 00	45 00
Diseases of the Mind and Nervous System (one Professor), and Electro-Therapeutics	20 00	35 00
Electro-Therapeutics only	10 00	15 00
Defects of Speech	15 00	25 00

A General Ticket entitling the student to attend the entire work and instruction in all the clinical departments, as given in the general and special schedules, is issued for one week at \$20, for six weeks at \$90, for three months at \$150, and for one year at \$350. In all cases an extra fee is charged for any laboratory course. The Faculty would strongly urge those contemplating taking more than one course, to take a general ticket. After long experience it has been abundantly demonstrated that whether a pupil-physician has or has not predilection for the study of the specialties, the most economical and satisfactory plan is that on which the general ticket is issued. In this way he can at a minimum cost map out a day's full work in those fields that are most congenial to his tastes.

The Laboratory Courses are not included in the general ticket, and no reduction is made in fees for such courses as are given during the summer term.

FEEs FOR THE LABORATORY COURSES.

Anatomy	\$25 00
One "part" for Dissection	5 00
Operative Surgery on the Cadaver	30 00
Operative Gynecology	50 00
Fracture Dressing and Bandaging	15 00
Toxicology	15 00
Water Analysis (sanitary)	15 00
Urinary Analysis	10 00
Bacteriology	15 00
Pathology	15 00

Certificate and Fellowship.—A handsomely engraved certificate of attendance will be furnished for a fee of five dollars to pupils who have taken a course in any or all departments. Fellowship may be obtained by examination in accordance with the following provision of the By-Laws:

"Any pupil who has received the full course of instruction and passed a satisfactory examination in all departments shall, upon nomination by the Faculty, be elected by the Trustees a Fellow of the Philadelphia Polyclinic and College for Graduates in Medicine."

For additional information address,

MAX J. STERN, M.D., *Secretary*,

Philadelphia Polyclinic and College for Graduates in Medicine,

or

Philadelphia, Pa.

MR. WM. S. LEFFMAN, *Clerk*.

DETAILS OF DEPARTMENTS.

SURGERY.

PROFESSORS.—JOHN B. ROBERTS, M.D.; LEWIS W. STEINBACH, M.D.;

THOMAS S. K. MORTON, M.D.; MAX J. STERN, M.D.

LECTURER.—HENRY R. WHARTON, M.D.

ADJUNCT PROFESSOR.—COLLIER L. BOWER, M.D.

ASSOCIATE.—ANNA M. FULLERTON, M.D.

INSTRUCTORS.—MORRIS B. MILLER, M.D.; JOHN H. GIBBON, M.D.

CLINICAL ASSISTANTS.—A. L. BARCUS, M.D.; MARIE B. WERNER, M.D.;

LUDWIG LOEB, M.D.; RICHARD WILSON, M.D.; M. W. FELL-

MAN, M.D.; A. L. MCKINLEY, M.D.; S. L. GANS, M.D.; ALFRED

F. ALLMAN, M.D.; M. A. NEUFELD, M.D.; M. STALLER, M.D.;

EDGAR SAVIDGE, M.D.

The Surgical Department utilizes the great mass of clinical material offering at the Polyclinic Hospital, and throws open to students the surgical wards of almost every large hospital in the city. Major operations are of almost daily occurrence in the Polyclinic, and a large major and minor accident service is incident to the new buildings being situated in a densely populated district hitherto unprovided with surgical facilities.

Demonstrative clinical instruction (see rosters) is given in the wards, dispensaries and operating-rooms of the Polyclinic, and by members of the Faculty, in the following hospitals:

Episcopal,	Pennsylvania,	Woman's,
Children's,	Philadelphia,	Orthopedic,
Jewish,	St. Agnes',	Howard,
Methodist	Jefferson,	Samaritan.

Pupils receive instruction in the diagnosis and operative treatment of surgical diseases and injuries, in surgical pathology, the use of instruments, and in the theory and practice of aseptic and antiseptic methods of wound-treatment. Two rooms for the preparation of sterilized materials have been built under the new amphitheater; these have been fitted with the most perfect appliances known to modern science, and theoretical and practical instruction is given in asepsis and antisepsis in a course of weekly lectures, delivered by Dr. Morris B. Miller. Pupils are also given opportunities to dress and treat large numbers of cases, and are allotted to assist at or perform operations in suitable cases.

The class is likewise thoroughly drilled in the application of bandages, splints, fracture apparatus, plaster bandages and surgical dressings in general.

In accordance with the progressive methods of the school, the Faculty has recently added the necessary apparatus for photographing by the Roentgen rays, and the direct visual examination of bone lesions with the Edison fluoroscope. Demonstrations will be given from time to time as suitable cases present themselves.

Notices of operations other than those during the regular surgical clinic hours, to be performed at the Polyclinic or elsewhere, are posted upon the bulletin-board. For further particulars of this service see special surgical roster.

OPERATIVE SURGERY ON THE CADAVER.

PROFESSOR.—MAX J. STERN, M.D.

The surgical laboratory is elaborate as a clinical theater and has a complete armamentarium. The pupil is not required to furnish any instruments. A course is given in general operative surgery, embracing ligations, amputations, resections, trephining, and all the usual operations, the pupil performing the various procedures upon the cadaver, after familiarizing himself with the anatomy of the parts involved, under the supervision of the professor. Another course is given in which attention is particularly devoted to operative measures on abdominal viscera. This course includes operations on the intestines, ovaries, uterus, stomach, kidneys, etc., and is intended for those who desire to engage in the intelligent pursuit of the associated specialties. The two courses may be combined in a general one.* Facilities for dissection will be afforded to those who desire to pursue anatomic studies.† It has also been an aim of the department to furnish the requisite facilities to practitioners for the rehearsal of new or special operations, and to give them opportunity to study complex anatomic regions under pleasing and comfortable environment.

DISEASES OF THE RECTUM.

PROFESSOR.—LEWIS H. ADLER, JR., M.D.

ADJUNCT PROFESSOR.—JOHN D. MOORE, M.D.

INSTRUCTOR.—PHILIP R. CLEAVER, M.D.

CLINICAL ASSISTANT.—ROLAND S. LINDSAY, M.D.

To the general practitioner, this course offers abundant opportunity for the daily study of the methods of examining, diagnosing and treating rectal diseases and in the use of the various instruments. Dr. Adler gives one clinical lecture weekly in the amphitheater, which is open to pupils taking the general course.

SURGICAL DISEASES OF CHILDREN.

LECTURER.—HENRY R. WHARTON, M.D.

Throughout the winter session lectures upon the surgical diseases of children will be given at the Children's Hospital (close to the Polyclinic), where Dr. Wharton will utilize the very large amount of clinical material afforded by that institution. Special instruction will be given on the subjects of tracheotomy and intubation.

ORTHOPEDIC SURGERY.

PROFESSORS.—H. AUGUSTUS WILSON, M.D.; THOMAS G. MORTON, M.D.; JAMES K. YOUNG, M.D.

ADJUNCT PROFESSOR.—J. TORRANCE RUGH, M.D.

INSTRUCTORS.—BERTHA LEWIS, M.D., HOWARD REED, M.D.

MECHANICIAN.—A. G. GEFFVERT.

INSTRUCTOR IN MASSAGE AND SWEDISH MOVEMENTS.—JESSIE M. WARD.

Once a week Prof. Morton meets the class at the Orthopedic Hospital and Infirmary for Nervous Diseases, and in this rich field illustrates the operative and mechanical treatment of deformities.

At the Polyclinic, instruction is given by Prof. Wilson on Wednesdays, on Tuesdays, Thursdays and Saturdays by Prof. Young, and on Mondays and Fridays by Adj. Prof. Rugh.

The clinical lectures of Prof. Wilson, on Thursdays, at the Jefferson Hospital, may be attended by pupils of the Polyclinic.

The extensive collection of dried specimens, casts, etc., in the Mütter Museum of the College of Physicians, northeast corner Thirteenth and Locust Streets, is also utilized to illustrate the pathology of the affections under consideration.

The plan of instruction is by means of clinical demonstrations of dispensary

* For particulars as to the Special Course in operations upon the female pelvis only, see under the Department of Diseases of Women, p. 32.

† See also under Department of Anatomy, p. 35.

and ward cases, with special reference to spinal, hip and other joint diseases, club-foot, osseous malformations and other bodily deformities, both congenital and acquired. Each case is thoroughly and practically studied, and, so far as is consistent with the welfare of the patient, is personally examined and treated by the physician-pupils. The preparation and application of the plaster-of-paris bandage are features of this course.

The mechanician is in attendance to demonstrate the fitting and adjusting of mechanical appliances under the direction of the professors. Particular attention is paid to the demonstrations of simple, cheap and effective apparatus and methods to be substituted for the more complex and expensive appliances commonly used, with a view to enable the physician remote from the instrument makers of the large cities to make a simple mechanism that shall fulfil all the desired needs.

EYE DEPARTMENT.

PROFESSORS.—EDWARD JACKSON, M.D.; SAMUEL D. RISLEY, M.D.; GEORGE E. DE SCHWEINITZ, M.D.; HOWARD F. HANSELL, M.D.; THEODORE B. SCHNEIDEMAN, M.D.

ADJUNCT PROFESSORS.—JOHN T. CARPENTER, JR., M.D.; JAMES THORINGTON, M.D.; CLARENCE A. VEASEY, M.D.

INSTRUCTORS.—FLORENCE MAYO, M.D.; ARCHIBALD G. THOMSON, M.D.; E. W. STEVENS, M.D.; HELEN MURPHY, M.D.; WM. M. SWEET, M.D.

CLINICAL ASSISTANTS.—MARY GETTY, M.D.; FRANCES W. JANNEY, M.D.; JOHN B. TURNER, M.D.; WM. M. CAPP, M.D.; MARIA W. HAYDON, M.D.; MIRIAM M. BUTT, M.D.

This course offers the best facilities anywhere attainable for the practical study of ophthalmology. The pupil is able to spend the greater part of the day in actual clinical work, using the ophthalmoscope, test-lenses, etc. From two to four hours of instruction are given daily by the professors, the remainder of the work being under the supervision of skilled instructors.

DETAILS OF INSTRUCTION.

Services of Professors Jackson and Schneideman.

PROF. EDWARD JACKSON, PROF. T. B. SCHNEIDEMAN, DR. FLORENCE MAYO, Instructor. **DR. JOHN B. TURNER, DR. MIRIAM M. BUTT,** Clinical Assistants.

Prof. Jackson lectures at the Polyclinic on Tuesdays and Fridays at 9 A.M., and conducts the clinic at Wills' Eye Hospital on Tuesdays, Thursdays and Saturdays at 2 P.M.

Prof. Schneideman lectures and conducts the ophthalmic clinic at the Polyclinic on Mondays, Wednesdays, and Fridays at 4 P.M.

Systematic Course on Refraction.—The lectures by Professor Jackson include a systematic course on Refraction and the Theory and Use of the Ophthalmoscope; and the practical illustration of the subject goes on daily in the clinical service. Skiascopy, both with the plane and concave mirrors, is constantly employed in the clinics. The theory and use of the ophthalmometer are fully explained and illustrated. The best methods of applying the trial lenses and the significance of the data elicited by their use are carefully taught, and the student is given full opportunity to apply all these methods of diagnosis under the supervision of the professors and instructors.

The requirements and the methods for accurately fitting spectacle and eye-glass frames are carefully explained; and practically illustrated by Dr. Mays.

The facilities for practice with the ophthalmoscope are probably unequalled anywhere else, because of the general use of the mydriatics in the large number of refraction cases. The appearances presented in the fundus of the eye are pointed out, commented upon and farther illustrated by comparison with the best atlases of ophthalmoscopy.

Practice in the measurement of refraction with the ophthalmoscope is also afforded with the artificial eye. The common diseases of the anterior segment of the eye are given special attention, and amply illustrated in the clinics by Prof. Schneideman.

The course also includes the clinical anatomy of the eye, both macroscopic and microscopic; with demonstrations of its pathological anatomy and histology, illustrated by diagrams, specimens, photographs, and microscopic slides. The more common operations upon the eye and its appendages are also illustrated and explained in the clinical service.

Service of Prof. S. D. Risley.

PROF. S. D. RISLEY. DR. JOHN T. CARPENTER, JR., DR. JAMES THORINGTON, Adjunct Professors. DR. HELEN MURPHY, Instructor.

The teaching in Prof. Risley's service is classified, so that a systematic course of instruction in ophthalmology is given each six weeks.

Prof. Risley lectures at the Polyclinic on Thursdays at 4 P.M., and conducts the clinic at the Wills' Eye Hospital on Mondays, Wednesdays and Fridays at 2 P.M., and has charge of the 9 o'clock A.M. service daily at the Polyclinic conducted by Dr. Thorington and Dr. Murphy.

In the Thursday 4 P.M. lecture a careful didactic course is given on the diseases of the external tunics and the surgical affections of the eye, all of which find ample clinical illustration at the rich service at the Wills' Eye Hospital from 2 to 4 P.M., on Mondays, Wednesdays and Fridays, and at the daily service at the Polyclinic at 9 A.M.

Dr. John T. Carpenter, Jr., holds three conferences weekly, eighteen in all, at the Wills' Hospital, on the ophthalmoscopic diseases of the eye, where abundant opportunity is afforded for clinical demonstration and study.

Dr. James Thorington and Dr. Helen Murphy each hold six conferences weekly, thirty-six in all, at the 9 o'clock service at the Polyclinic, on the Anomalies of Refraction and Accommodation, and the Wills' Hospital service gives abundant additional opportunity for the study and correction of these errors by the pupils.

Careful attention is paid to the details of operations on the eye and its appendages; the ordering of glasses; the study of and operations for abnormalities of ocular balance; and the use of the ophthalmoscope and ophthalmometer. At least one evening in each course of six weeks is devoted to the study of the pathologic histology of the eye by Professors Risley and Randall. For this purpose both microscopic and macroscopic preparations of eyes with a known clinical history are employed and the lantern freely used as a means of illustration.

Service of Prof. G. E. de Schweinitz.

PROF. DE SCHWEINITZ, ADJ. PROF. VEASEY. DR. MARY GETTY, DR. FRANCES JANNEY, Clinical Assistants.

Operative Ophthalmology.—Professor de Schweinitz lectures at the Polyclinic on Saturdays at 4 P.M. On Tuesdays at 4 P.M., he gives a systematic course in operative eye surgery. The pupils perform the various operations upon pigs' eyes under his direct supervision. From November to January and May to August, inclusive, he holds a clinic at the Philadelphia Hospital on Mondays, Wednesdays and Fridays at 4 P.M. From January until April he gives a clinic at the Jefferson College Hospital on Fridays at 1 P.M., to which Polyclinic students are welcome.

The clinic at the Children's Hospital on Mondays and Fridays at 3 P.M., is open to pupils of the Polyclinic under Dr. Thomson's instruction.

Service of Prof. Howard F. Hansell.

PROF. HOWARD F. HANSELL. DR. WM. M. SWEET, Instructor. DR. WM. M. CAPP, DR. MARIA W. HAYDON, Clinical Assistants.

Professor Hansell gives clinical instruction three days in the week, at 12 o'clock. On the alternating days the clinic is in charge of Dr. Sweet, who will devote his teaching partly to the relation of the eye to general disease. Prof. Hansell gives systematic instruction on the functions of the ocular muscles, and the phenomena attending their anomalous action; he also devotes some time to oculo-neurology, discussing clinically those problems that stand midway between ophthalmology and neurology; in this latter work Prof. Hansell will be assisted by Dr. Reber. Pupils are invited to Prof. Hansell's clinical lectures at the Jefferson College Hospital, Fridays at 1 P.M.

DISEASES OF THE EAR.

PROFESSORS.—B. ALEXANDER RANDALL, M.D.; RALPH W. SEISS, M.D.
INSTRUCTORS.—GEO. C. STOUT, M.D.; HENRIETTA DOUGHERTY, M.D.; W. S. SHIMER, M.D.
ASSISTANTS.—JEANNIE S. ADAMS, M.D.; BARTON H. POTTS, M.D.; WM. H. FRITTS, M.D.; A. H. AUDENREID, M.D.; RACHEL R. WILLIAMS, M.D.; FRANCIS R. PACKARD, M.D.; WALTER ROBERTS, M.D.

Instruction is given in the diagnosis and treatment of diseases of the ear by means of direct examination of patients under the supervision of the Professors, who personally teach each pupil in the methods of examination and the interpretation of the conditions seen. The time is principally given to actual practice in the study of cases and the application of treatment, with only little attention to the theoretic matters which can be readily obtained by reading. The practical surgical anatomy of the ear is constantly taught by means of normal and pathologic preparations, models, photographs and microscopic sections. The rich cabinets of the Professors, as well as the magnificent collections in the Mütter Museum of the College of Physicians, illustrate admirably these much-neglected sides of the subject; and their utilization in conjunction with the clinical cases greatly facilitates the acquisition and retention of such a fundamental understanding of the subject. Stress is laid upon the recognition and treatment of the naso-pharyngeal conditions usually present, and upon the study of the broad general conditions underlying the local disease. The various operative measures of treatment are carefully considered and employed before the class in appropriate cases.

In addition to the facilities afforded by the Polyclinic, the aural cases at the adjacent Children's and Rush Hospitals will be utilized for teaching.

DISEASES OF THE THROAT AND NOSE.

PROFESSORS.—ARTHUR W. WATSON, M.D.; WALTER J. FREEMAN, M.D.; E. LARUE VANSANT, M.D.; JOS. S. GIBB, M.D.
INSTRUCTORS.—LEVI J. HAMMOND, M.D.; PHILIPP FISCHER, M.D.; KATE W. BALDWIN, M.D.; FRANK WOODBURY, M.D.; WILSON BOWERS, M.D.; B. F. R. CLARK, M.D.; GEORGE C. KÜSEL, M.D.
ASSISTANTS.—R. A. MARTIN, M.D.; JNO. A. HEARST, M.D.; AARON G. MILLER, M.D.; P. S. DONNELLAN, M.D.; WM. M. BRADLEY, M.D.; H. J. OFF, M.D.; CHAS. C. RANKIN, M.D.; ERNEST M. RAMSDELL, M.D.

The clinical service of this department is one of the largest anywhere. Ample opportunities are here afforded to physicians taking the course for the study and treatment of the various phases of diseases of the upper air-passages. Each pupil is given individual instruction in laryngoscopy and rhinoscopy and abundant opportunity to gain the facility and skill which practice alone can give. The patients are daily utilized for drawing attention to the pathologic conditions present, and the changes which these undergo as the result of treatment. A large number of operations upon the throat and nose are performed in the presence and with the assistance of the members of the class, and all the latest methods of procedure are demonstrated or discussed. Some eighteen hours a week of clinical work are given at the Polyclinic, each of the Professors holding three clinics weekly, as shown upon the special roster. Additional teaching and opportunities for study are given at the Howard, Children's, and Episcopal Hospitals, as follow:

Prof. Watson teaches at the Howard Hospital on Wednesdays and Saturdays from February 1st to August 1st.

Prof. Vansant teaches at the Howard Hospital on Wednesdays and Saturdays from August 1st to February 1st.

Prof. Freeman holds a dispensary service at the Children's Hospital at 1.30 on Monday and Friday, and operates there on Wednesday at the same hour.

Prof. Gibb holds a dispensary service at the Episcopal Hospital at 2 o'clock on Tuesdays and Fridays.

Prof. Freeman lectures at 2 P.M., on Tuesday, at the Polyclinic. A complete series of lectures on the anatomy, physiology and diseases of the throat, nose and larynx is given each six weeks.

Pupils are urged to provide themselves with the following instruments in order to take full advantage of the practical work offered: $3\frac{1}{4}$ -inch forehead reflector; Türk tongue depressor; Roth nasal speculum; No. 4 laryngeal mirror (23 mm.); No. 1 rhinoscopic mirror (13 mm.).

Pupils of the Polyclinic may attend the Clinical Lectures of Emeritus Professor J. Solis-Cohen, at Jefferson Hospital, on Fridays, at 3 P.M.

DISEASES OF THE MIND AND NERVOUS SYSTEM.

PROFESSOR.—CHARLES K. MILLS, M.D.

INSTRUCTORS IN NERVOUS DISEASES AND ELECTRO-THERAPEUTICS.—J. W. MCCONNELL, M.D.; ELIZABETH R. BUNDY, M.D.; A. FERREE WITMER, M.D.; WM. G. SPILLER, M.D.

PATHOLOGIST TO THE DEPARTMENT.—ALOYSIUS O. J. KELLY, M.D.

INSTRUCTOR IN NEURO-PATHOLOGY.—J. H. W. RHEIN, M.D.

INSTRUCTOR IN THE NEUROLOGICAL LABORATORY.—M. A. SCHIVELY, M.D.

In this department, opportunities for studying all forms of nervous and mental diseases are afforded by the dispensary service of the Polyclinic, and the wards for nervous diseases and the Insane Department of the Philadelphia Hospital. Plentiful material is thus furnished for the examination of cases. Demonstrations are made at frequent intervals. The clinic is especially well supplied with static, galvanic and faradic apparatus. Systematic, practical instruction in electro-therapeutics is also given, which may be taken separately, if desired, at a reduced fee.

In connection with the Department, a Pathological Laboratory has been established, and is under the charge of Dr. Aloysius O. J. Kelly, Adjunct Professor of Pathology, with the assistance of Dr. Rhein, as special Instructor in Neuro Pathology. In this laboratory are prosecuted investigations into the origin and minute tissue changes of morbid processes affecting the nervous system, and opportunities are afforded to pupils of examining specimens, and of acquiring some practical knowledge of neuro-pathology. The pathological material is chiefly supplied by the professors and others connected with the department; but others not connected with the institution are invited to send specimens for examination.

CLINICAL MEDICINE, APPLIED THERAPEUTICS, PHYSICAL DIAGNOSIS AND DISEASES OF THE CHEST.

PROFESSORS.—THOS. J. MAYES, M.D.; SOLOMON SOLIS-COHEN, M.D.; J. P. CROZER GRIFFITH, M.D.; AUGUSTUS A. ESHNER, M.D.; JUDSON DALAND, M.D.

ADJUNCT PROFESSOR.—DAVID RIESMAN, M.D.

INSTRUCTORS.—TRUMAN AUGÉ, M.D.; MAURICE A. BUNCE, M.D.; A. A. STEVENS, M.D.; JOSEPH I. SMITH, M.D.

CLINICAL ASSISTANTS.—CHARLES HERWISCH, M.D.; WILMON W. LEACH, M.D.; JOHN MCLEAN, M.D.; MARY B. GARVIN, M.D.; FRANK MASSEY, M.D.; CHARLOTTE C. WEST, M.D.; EMILY G. WHITEN, M.D.; B. SHMOOKLER, M.D.

In each of these allied departments the entire field of clinical medicine is covered; but certain subjects receive more prominent and detailed attention in one clinic, other subjects in another clinic. The pupil is advised to attend all of them. The dispensary material is ample, and can be supplemented by the wards of the Polyclinic Hospital and by the services of the professors at the Rush, Philadelphia, Jewish, Children's and Howard Hospitals. Physical diagnosis is carefully taught, and the relation of physical signs to symptoms and pathologic changes pointed out and illustrated. The most recent methods of "clinical diagnosis," including the use of the sphygmograph and the Roentgen-rays, and the examination of the blood, sputum, stomach contents and urine are taught to the class; and pupils desiring additional opportunities for thorough study of these subjects may arrange for special courses, either in the dispensary service or at the Laboratory of Pathology.

Professors Mays, Cohen and Griffith are on the staff of the Rush Hospital, and the various special methods in the treatment of pulmonary consumption,

the rest treatment, pneumatic treatment, treatment by forced feeding, etc., are illustrated in their services both there and at the Polyclinic Hospital. At the Polyclinic, Prof. Mays holds three clinics weekly; Prof. Cohen, two clinics weekly, his third hour being filled by Adjunct Professor Riesman; Prof. Griffith holds two clinics weekly, his third hour being filled by Dr. A. A. Stevens; Prof. Eshner holds a clinic daily; and Prof. Daland holds three clinics weekly, the latter devoting his entire attention to the diagnosis and treatment of diseases of the lungs, heart and vessels. At the Philadelphia Hospital, Professor Cohen is on duty from October 1 to May 31, and gives Clinical Lectures on Wednesdays, at 10 A.M., during November and December; and Prof. Eshner is on duty from June 1 to September 30. For ward-study with any of the Professors, special arrangements may be made.

DISEASES OF THE STOMACH AND INTESTINE.

PROFESSOR.—D. D. STEWART, M.D.

CLINICAL ASSISTANT.—CLARENCE J. GARITEE, M.D.

In this department suitable clinical material of the hospital is utilized for practical instruction in the diagnosis and treatment of functional and organic diseases of the stomach and intestine, by modern methods. The pupils are severally taught the proper employment of the stomach tube and other appliances that experience has shown are of utility for local diagnostic and therapeutic purposes. Special attention is paid to the most practical methods of examination of the gastric contents for hydrochloric acid and the various ferments, and to the application of the knowledge thus gained in the treatment of diseased conditions. Three clinics are held weekly.

OBSTETRICS AND DISEASES OF INFANCY.

PROFESSOR.—EDWARD P. DAVIS, M.D.

ADJUNCT PROFESSOR.—WM. H. WELLS, M.D.

ASSISTANT.—

This department affords opportunities for the practical study of methods of diagnosis, including the measurement of the pelvis, the diagnosis of the contracted pelvis, auscultation and palpation. Operative procedures necessary in cases of difficult labor are illustrated upon the manikin. Modern methods of treatment in the prevention of septicemia, and modern instruments for craniotomy and other obstetric operations are also studied. In addition, a daily clinical service is held at the Polyclinic Hospital, from which material is drawn to illustrate the course. Modern methods of infant feeding are demonstrated, and recent researches in the care of infants are fully illustrated.

Prof. Davis will give clinical lectures on Wednesday mornings in the months of January, February and March at the Philadelphia Hospital, Thirty-fourth and Pine Streets. During June, July, August and September, pupils may attend the Children's Clinic, held daily at the Howard Hospital.

DISEASES OF CHILDREN.

PROFESSOR.—J. MADISON TAYLOR, M.D.

INSTRUCTOR.—JAS. HERBERT MCKEE, M.D.

CLINICAL ASSISTANTS.—CLARENCE H. FRITZ, M.D.; A. KOENIG, M.D.

Professor Taylor holds a clinic at the Polyclinic on Mondays and Thursdays at 10 A.M., also at the Children's Hospital on days when not engaged at the Polyclinic, at 11 A.M. He also utilizes for the demonstration of nervous diseases of children his services at the Howard Hospital on Tuesdays at 11 A.M., and at the Orthopedic Hospital and Infirmary for Nervous Diseases on Fridays at 1 o'clock. Classes can also be arranged to visit the Elwyn and the Vineland Schools for Feeble-minded Children.

The service of Prof. Griffith at the Children's Hospital affords additional opportunities for the study of the diseases of childhood. The clinic at the Polyclinic is a daily one, the instructors being in charge on days when Prof. Taylor is in attendance at the Children's Hospital.

A new ward for children has been added to the Polyclinic Hospital, which will furnish a rich field for study to the pupils in this department.

DISEASES OF THE SKIN.

PROFESSOR.—J. ABBOTT CANTRELL, M.D.

INSTRUCTOR.—JAY F. SCHAMBERG, M.D.

The department of diseases of the skin is thoroughly equipped for the practical demonstration of diseases directly upon the patient, by which, with the assistance rendered by photographs and drawings, the pupil is made thoroughly acquainted with each disease in all its manifestations. Practical demonstrations are given of the manner of applying remedies, and patients return often enough to enable the pupil to observe the effects of treatment. The uses and effects of both internal and external remedies, old and new, are matters of special study. The frequent use of the microscope is resorted to in the examination of the blood, urine, etc.

In addition to the abundance of material at the Polyclinic Hospital, pupils have the opportunity of attending the semi-weekly clinics of Professor Cantrell at the Frederick Douglass Memorial Hospital, which is within a few minutes' walk of the Polyclinic. These afford material for study of skin affections in the colored race. Pupils will also be admitted to the service of Professor Cantrell at the Philadelphia Hospital, which furnishes a rich field for dermatologic observation.

DISEASES OF WOMEN.

PROFESSORS.—B. F. BAER, M.D.; J. M. BALDY, M.D.; H. A. SLOCUM, M.D. LECTURER.—CHARLES P. NOBLE, M.D.

ADJUNCT PROFESSOR.—FRANK W. TALLEY, M.D.

INSTRUCTORS.—W. A. N. DORLAND, M.D.; THEODORE A. ERCK, M.D.

CLINICAL ASSISTANTS.—ELIZABETH M. CLARK, M.D.; W. OAKLEY HERMAN, M.D.

The course on this subject offers unsurpassed facilities for the practical study of gynecology. Direct personal instruction is possible from the large clinical resources of the Out-Patient Department as well as from the patients in the hospital wards. The course is thoroughly practical. Patients from the dispensaries are presented for examination, diagnosis and treatment under the direct personal supervision of the professors. In the new amphitheater the various abdominal and plastic operations are performed before the class.

Prof. Baer holds two clinics weekly at the Polyclinic Hospital. The students in attendance have the advantage of numerous other operations at other and convenient hours.

Prof. Baldy holds two clinics each week at the Polyclinic Hospital. His operations at the Gynecean Hospital and other institutions with which he is connected are open to attendance by the pupils in this department.

Prof. Slocum gives especial attention during two weekly clinics to pelvic examinations, clinical diagnosis, and local and systemic treatment. He operates at the Polyclinic Hospital at various times.

Dr. C. P. Noble operates on Mondays, Wednesdays, Thursdays, and Saturdays, at the Kensington Hospital for Women; card of invitations to his operations are issued to pupils of the Polyclinic upon application.

Didactic instruction is given throughout the whole course, following as closely as possible the clinical cases as they are presented and operated upon.

SPECIAL COURSE IN OPERATIVE GYNECOLOGY.

The special course of the operations in Gynecology may be entered at any time. Pupils availing themselves of this course perform all the operations upon the cadaver, under the direct supervision of one of the professors of the department. The course comprises the operations for lacerated perineum, complete and incomplete, including anterior colporrhaphy; vesico and recto-vaginal fistula; trachelorrhaphy; amputation of the cervix; dilatation and curettage; oöphorectomy; hysterectomy; hysterorrhaphy, and various other operations for displacements, as well as all the abdominal operations upon the female pelvic organs.

GENITO-URINARY SURGERY.

PROFESSORS.—THOMAS R. NEILSON, M.D.; EDWARD MARTIN, M.D.

ADJUNCT PROFESSOR.—HILARY M. CHRISTIAN, M.D.

INSTRUCTOR.—JOHN LINDSAY, M.D.

CLINICAL ASSISTANTS.—ELLISTON J. MORRIS, M.D.; H. M. HILLER, M.D.; HENRY S. KIERSTED, M.D.; W. B. SMALL, M.D.; JAMES P. HUTCHINSON, M.D.

The instruction given in this department affords the pupil an opportunity of familiarizing himself with the diagnosis, treatment and pathology of these diseases by direct observation and practice. The macroscopic and microscopic examination of the urine, the exploration of the urethra with sounds, bougies and the urethroscope, the systematic examination of the bladder, the catheterization of the ureters, are carefully explained and demonstrated. The technic of injections, irrigations and instillations is shown; and a didactic course, illustrated, as far as possible, by clinical cases, is given, covering surgical diseases of the kidneys.

The members of the class will have an opportunity of performing the major and minor operations pertaining to this branch of Surgery, under the direct supervision of the professor in charge. The general surgical service of Professor Neilson at the Episcopal Hospital includes many examples of genito-urinary surgery, as well as rich general operating material. Professor Martin holds his extra-mural clinics at the University Hospital, from 12 to 1, throughout the year; at the Howard Hospital (surgical), from 10 to 12, from February to August; at the St Agnes' Hospital (surgical), from 12 to 1, during May, June and July, and at the Philadelphia Hospital, from 1 to 2, during June and July.

DEFECTS OF SPEECH.

PROFESSOR.—G. HUDSON MAKUEN, M.D.

CLINICAL ASSISTANTS.—A. H. C. ROWAN, M.D.; MARY E. MARVIN, HELEN BLAYLOCK, I. H. BECHTEL.

This most recent department of the college and hospital is believed to be the first of its kind anywhere. Cases of defective speech of whatever kind and from whatever condition are received and carefully examined. If the cause of the defect is found to be any malformation or disease of the vocal or speech organs, the patient is referred to the appropriate department for local treatment; but if the cause of the defect is found to be a disease coming under the domain of neurology, the patient is referred to that department. In every case a systematic course of training in voice and articulation is instituted by Dr. Makuen and specially qualified assistants. The attendance at this clinic is very large and the results seem to be well worthy of the attention of physicians.

ANATOMY.

PROFESSOR.—ADDINELL HEWSON, M.D.

The anatomical laboratory is exceptionally well lighted and ventilated. The material is free from odor, with natural colors preserved, and wax injections. Pupils may obtain material and dissect, with or without instruction. In the latter case the course may consist either of twelve demonstrations, embracing the various surgical regions of the body, or, by special arrangement, of extended demonstrations on one or more specified regions. When physicians, to avoid possibility of sepsis, or for other reasons, prefer to study a region without the labor of dissecting, facilities will be furnished upon application to Dr. Hewson.

PATHOLOGY.

ADJUNCT PROFESSOR.—ALOYSIUS O. J. KELLY, M.D.

The Pathological Laboratory has been thoroughly equipped with the best of modern apparatus, is excellently lighted and is arranged throughout with an eye to the easiest and most satisfactory accomplishment of pathologic technic.

Two courses are given. The one—a short course on *Clinical Pathology*—consists of the ordinary chemic and full microscopic study of the urine, and demonstrations of the various methods of examining and staining the blood and sputum. The other—a longer course on *General and Special Pathology*—consists of the practical application of the different methods of hardening, imbedding, cutting, staining and mounting tissues, together with occasional didactic lectures. Demonstrations of gross pathologic lesions will also be given, and pupils of this department will be permitted to attend whatever autopsies are held in the Hospital.

Those who desire to do special work will have the opportunity of studying the methods of staining the tissues of the central nervous system, and students who have already had laboratory instruction and are competent to undertake experimental work will be offered opportunities for prosecuting original researches upon such subjects selected by them as may meet with the approval of the professor.

The laboratory will be open for several hours daily, and at such times the professor or his assistants will be in attendance.

FROM all that has appeared in the medical press of late, our private correspondence with physicians, the interviews of our representatives with medical men in every State and Territory, there seems to be nothing so valuable as

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FACULTY.

EMERITUS PROFESSORS.

J. SOLIS-COHEN, M.D., Diseases of the Throat.
 CHARLES H. BURNETT, M.D., Diseases of the Ear.
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THE PHILADELPHIA POLYCLINIC

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OCTOBER 9, 1897

OPERATIVE SURGERY AT THE PHILADELPHIA POLYCLINIC, FROM MAY 1, 1896, TO SEPTEMBER 1, 1897.

BY FRANCIS T. STEWART, M.D.

Late Resident Surgeon to the Polyclinic Hospital; Resident to the Pennsylvania Hospital.

(Concluded from page 401, Vol. VI, No. 40.)

B. OTHER ABDOMINAL SECTIONS.

	Cases.	Recoveries.	Deaths.
Gastro-enterostomy	1	1	0
Gastrotomy	1	1	0
Gastric neurosis	1	1	0
Gumma of liver	1	1	0
Cholecystotomy	2	2	0
Perforating intestinal ulcer . . .	1	0	1
Intestinal obstruction	2	0	2
Hernia, inguinal	5	5	0
" strangulated	3	0	3
" umbilical	1	1	0
Cancer of intestine	6	6	0
Appendicitis	9	9	0
" suppurative	10	8	2
Pelvic tubercular abscesses . . .	2	2	0
Total	45	37	8

The gastro-jejunostomy for malignant pyloric stenosis was made with the Murphy button by the anterior or Wolffler method. The patient left the hospital enjoying his meals, but died fifty-eight days subsequent to operation with high fever and jaundice. The button was not recovered.

The following two cases vividly testify to the curative power of simple incision. One patient had been ill for two years with symptoms of gastrectasia, and had lost thirty

pounds during the last three months. Examination of the stomach contents indicated cancer, although no tumor could be palpated. On opening the abdomen, the stomach appeared to be normal, and, although it was incised and a finger passed into the duodenum, no pathologic condition could be detected. The old symptoms promptly disappeared. The second case had suffered for fourteen years with constant epigastric pain following a blow. Thinking of pro-peritoneal hernia, an incision was made, but nothing in the abdominal wall nor about the stomach could be found to account for the trouble. Five months have now elapsed since the operation, and the patient continues to enjoy absolute freedom from pain.

The next case was opened for cholelithiasis, but no stones were present in the gall-bladder; instead, a gummatous tumor of the liver presented. A piece of this was excised for the pathologist, and the incision closed.

Two cases of cholelithiasis were operated upon. One gall-bladder was incised, the stones removed, and the sac sutured to the abdominal incision; the other did not necessitate suturing to the abdominal wall because of the dense adhesions. Both were drained and discharged with a biliary fistula.

The perforating ulcer which occurred

in the ileum was closed by three Lembert sutures. The man had had abdominal pain, fever, and diarrhea for one week, and was admitted with symptoms of peritonitis. The intestines were dark, distended, and in places black; the mesenteric glands were markedly enlarged. He died shortly after the operation. The Widal test proved negative.

Both cases of intestinal obstruction developed peritonitis before admission. In one the obstruction had been present for nine days, and was due to an adherent twist at the splenic flexure. The other had been obstructed for five days. His condition was so wretched that the cause of obstruction was not diligently searched for, but the distended descending colon was incised and fastened to the abdominal wound. Both died within twenty-four hours of the time of operation.

Bassini's operation was used for the cure of inguinal hernia. Chromatized catgut and kangaroo tendon united the deeper structures, while silkworm-gut brought the skin incision together.

A regular Bassini operation was performed in each of the three cases of strangulated inguinal hernia. Two were in old men, the third in a male child, three years old. The adults both died within twenty-four hours. The child succumbed to a broncho-pneumonia which was contracted before admission: the strangulation was, in part, due to an hydrocele of the cord which prevented the reduction of the turgid intestinal loop.

The patient with umbilical hernia weighed 260 pounds. Operation was easy and recovery complete with primary union, in seventeen days.

Four of the intestinal cancer cases were closed after the inoperable nature of the growth became evident; in one a large abscess was evacuated and drained, a fecal fistula following. Two of the cases, involv-

ing the sigmoid, were treated by high colotomy.

In cases of chronic and recurring appendicitis the appendix was reached through the McBurney incision, and, with a small area of surrounding cecum, clipped off with scissors. The breach in the large intestine was then closed by the Lembert method. Nothing occurred to mar the convalescence of these patients. The suppurative cases were simply incised and drained; in two instances it was easy to ligature the appendix and remove it. One of the suppurative cases was suffering from his fourth appendicial abscess.

The two cases that died had violent general peritonitis at the time of operation and thin feces bathed the intestines; they both perished within twenty-four hours.

The pelvic abscesses tabulated above filled fully one-half of the pelvis and were due to tuberculous spondylitis; they were opened and drained.

AMPUTATIONS.

	Cases.	Recoveries.	Deaths.
Hip joint	2	2	0
Thigh	2	1	1
Foot	1	1	0
Arm	2	2	0
Hand	1	1	0
Fingers and toes	23	23	0
Total	31	30	1

The hip joint amputations were done by the Wyeth bloodless method. One case was suffering with tuberculous osteomyelitis complicated by lung tuberculosis; the other had a specific osteomyelitis and had already run the gauntlet of several minor operations as well as fibular excision and amputation through the thigh. Both recovered without any unpleasant symptoms excepting slight suppuration in one.

Both thigh amputations were for railroad

crushes. The case that died was not operated upon for twenty-four hours because of profound shock. On the second day it became necessary to remove all the stitches and liberate some pus. Although constant irrigation was instituted and the patient freely stimulated, he had chills and fever with multiple abscesses. On the twelfth day he succumbed to pyemia and exhaustion.

The foot was amputated for diabetic gangrene. The patient recovered with some suppuration.

Both the arm amputations were necessitated because of compound comminuted fractures. Neither had suppuration after operation.

Four of the toe amputations were done to relieve metatarsalgia (Morton's disease), and one for hammer toe. The remaining amputations tabulated above followed severe trauma and suppuration appeared in some part of the wound during the process of repair.

COMPOUND FRACTURES.

	Cases.	Recoveries.	Deaths.
Skull	10	8	2
Leg	3	3	0
Tibia	1	1	0
Humerus	2	2	0
Superior maxilla	2	2	0
Total	18	16	2

One of the skull cases was especially interesting because of a transient motor aphasia. He had received an incised wound of the left head, about six inches long, which severed the anterior branch of the middle meningeal and sank into the brain for one inch. Some depressed bone was raised and a hemostat left on the artery. The patient had right facial paralysis and was unable to speak although he could hear, understand, read, and write. On the thirty-eighth day he was discharged, the paralysis and aphasia having disappeared.

The two cases that succumbed were fractures of the skull base. One had no external signs of fracture except bleeding from the ear and was trephined for hemorrhage. The cerebral tissue was lacerated and the skull filled with blood. The other, clearly a fracture of the base, was trephined on the sixth day because of a gradually deepening coma due to meningitis.

Two of the above fractures of the leg were wired, the other plated; they all secured good legs after prolonged convalescence.

One of the humeral fractures involved the elbow joint; fair motion was secured. The second patient eloped before treatment was completed.

The superior maxillary fractures were treated with antiseptics and drainage. One of these illustrated well the method for exposing the interior of the nares according to Rouge: the boy had fallen from a height, fractured both upper jaws and detached the soft tissues and nasal cartilages from their attachments. The nares could be inspected by turning up the face and the finger passed as high as the orbit. He recovered without disfigurement, the nares being kept patent by rubber tubes.

Referring to the table which appears upon the next page, it may be noted that both cases of epilepsy followed compound fractures and were simply trephined, no incision being made into the dura. In each the attacks recurred but were separated by greater intervals.

The death after excision of the hip was due to shock and occurred shortly after the completion of the operation.

Several attempts under ether were made to reduce the simple fracture of the humerus without success. An incision was then made and the cause of some cases of nonunion after fracture forcibly demonstrated. The stripped-up periosteum and soft tissues were so disposed between the ends of the bone that

reduction was not accomplished until the distal and proximal ends were resected.

OPERATIONS ON BONES AND JOINTS.

	Cases.	Recov- eries.	Deaths.
Trephining (epilepsy)	2	2	0
Excision of hip	1	0	1
" of elbow	2	2	0
Simple fracture of humerus	1	1	0
Fracture of olecranon	1	1	0
Osteomyelitis	10	9	1
Excision of clavicle	1	1	0
" ribs	3	3	0
" superior jaw	3	3	0
Cleft palate	4	4	0
Spina bifida	1	1	0
Vicious union after fracture	5	5	0
Epulis lower jaw	4	4	0
Exostosis femur	1	1	0
Bow legs	3	3	0
Gunshot wound of knee joint	1	1	0
Total	42	40	2

The next case was one of simple fracture of the olecranon which suppurated. After the inflammation had subsided the process was sutured to the diaphysis with silver wire. Union with fair motion was obtained.

The death recorded under osteomyelitis was due to a septic overwhelming of the nervous centers. The child, who had a blood blister on the large toe, was suddenly seized with symptoms of tibial inflammation. The following day two holes were chiseled into the bone and the medulla curetted, irrigated and drained. The next day the child was dead. Osteomyelitis furnished the only indication for iodoform; acetanilid is the universal dusting powder.

The clavicle was removed for recurring carcinoma and exhibits more than an intrinsic interest, as twelve years before the woman's breast had been removed for cancer

and local recurrences were promptly excised three years, two years, and one year before the clavicular excision. Is not the value of prompt measures in malignant disease manifest? The middle four inches of the clavicle, together with the subjacent subclavian vein were excised. Nothing eventful occurred during convalescence.

One case of cleft palate was followed by alarming secondary hemorrhage which almost drained the patient's life away.

The bifid spine was treated by removing a prominent pedunculated meningocele.

One bone resection for vicious union has fibrous union only, after five months; in another, three months have elapsed since operation and the bones are united by fibrous tissue only. The rest were successes.

The last operation in this category was a free incision of the knee-joint to remove a bullet which had been located between the femoral condyles by the Roentgen rays. Free suppuration ensued and persisted for six weeks. The patient was discharged with excellent motion.

OPERATIONS ON THE GENITO-URINARY TRACT.

	Cases.	Recov- eries.	Deaths.
Cystotomies	5	5	0
Litholapaxy	2	2	0
Pyonephrosis	1	1	0
Castrations	4	4	0
Resection of scrotum	1	0	1
Ruptured varicocele	1	1	0
Perineal sections	3	3	0
Prostatectomy	1	1	0
Perineorrhaphy	7	7	0
Tumors of vulva	5	5	0
Atresia of vagina	2	2	0
Curettements	43	43	0
Total	75	74	1

Four of the cystotomies were done by the suprapubic method: one for stone, one for

chronic cystitis and sacculated bladder, and one for carcinoma which grew so rapidly that the bladder was again opened a few weeks after the first operation. The method for draining in these cases was described by Keen in the "Annals of Surgery," vol. xxiii, p. 174. The fifth cystotomy was done through the vagina: this patient had had hematuria for six months. Upon opening the bladder, its walls were found studded with small caseous nodules about the size of small shot; these were removed by the curet, and a glass bobbin inserted to keep the vesico-vaginal fistula patent. The hemorrhages gradually ceased.

After one of the litholapaxies, the patient had a chill, followed by a temperature of 104.5° without any deleterious sequel. The pyonephrosis was simply incised and drained.

Castration, in one instance, was made to reduce a senile prostate; the prostate had already begun to dwindle and the symptoms had already become mitigated before the patient left the hospital.

The death after resection of the scrotum, was due to sarcomatosis. The man had been castrated, a few months before, for malignant disease of the testicle, which recurred in the scrotal tissues and gave much trouble because of fetor and hemorrhages. The pulse was rapid and weak, and metastases could be felt in the abdomen. The growth with the corresponding half of the scrotum was removed. The man died five days later.

The case of ruptured varicocele is recorded here, because it was mistaken for strangulated hernia. The scrotum had suddenly swelled during a wrestling bout, and the man vomited. Repeated efforts at reduction were made by the physician, who advised his removal to the hospital. When first seen, the ecchymosis had already extended for several inches under the belly integument. The clots were turned out and the veins ligated; no hernia was found.

Two of the perineal sections were for crushing of the membranous urethra; a third to relieve a tight urethral stricture with tubercular degeneration of the peri-urethral tissues. The prostatectomy was an excision of a fibroma of the left lateral lobe. All made good recoveries.

Two of the vulvar tumors were malignant, requiring extensive dissection.

OPERATIONS ON SOFT TISSUES.

	Cases.	Recoveries.	Deaths.
Tumors	33	33	0
Tubercular adenitis	17	17	0
Diabetic cellulitis	2	0	2
Nerves	5	5	0
Foreign body in esophagus . . .	1	1	0
Retropharyngeal abscess . . .	1	0	1
Imperforate anus	1	1	0
Total	60	57	3

Twenty of the thirty-three cases of tumor were malignant and two of these were recurrent. Of the latter, one demands more than passing notice. The patient was subjected to amputation of the breast two years before, and although a Halstead operation was done she returned with a recurrence which involved the axillary vein. The vein was excised with the growth and an uninterrupted recovery, with slight edema of the arm, promptly ensued.

Both cases of diabetic cellulitis had a large amount of sugar in the urine, and both succumbed within twenty-four hours after free incision. In one the foot was attacked, in the other the hand and forearm.

The nerve operations embraced resection of the supraorbital, infraorbital, and inferior dental nerves for neuralgia; stretching of the median for pain, and suturing of an old wound of the radial for paralysis. After one operation for neuralgia the pain returned; the remaining nerve operations were successful.

The foreign body in the esophagus was a tin whistle which had become impacted near the upper opening of the thorax. It was located by the Roentgen ray and removed by the coin catcher.

The retropharyngeal abscess was first opened internally, but this did not suffice, so an external incision was made. The child died twenty-four hours later from broncho-pneumonia and sepsis.

In the last case recorded the rectum opened into the vagina one inch from the introitus. An incision was made from the fourchette to the coccyx, the rectum and vagina separated, and the former sutured to skin at the posterior extremity of the wound; the remainder of the incision was then closed, thus forming a perineum between the vagina and anus. The cosmetic result was excellent.

FLUID EXTRACT OF HYDRASTIS CANADENSIS.

BY CHAS. HERWIRSCH, PH.M., M.D.

Assistant in the Medical Department, Philadelphia Polyclinic; Physician to the Out-Patient Department, Rush Hospital for Consumptives, Philadelphia.

DR. SANGER, of Magdeburg, in the *Centralblatt für innere Medizin*, May 1, 1897, recommended the fluid extract of hydrastis canadensis for coughs in chronic bronchitis and the coughs in phthisis. Induced by his recommendation, and as we must welcome any drug which may benefit our patients, I concluded to make a trial of this one. During the summer months, in Dr. Griffith's service at the Polyclinic, in my out-patient clinic at the Rush Hospital for Consumptives, and at the Nazarene Home for the Aged, where I have medical charge of about 75 old ladies between 60 and 90 years of age, I found many cases suitable to administer the drug. In the acute stages of bronchitis I did not try the drug, as Dr. Sanger says that it is of very little use in such conditions. In chronic bronchitis I gave the drug to young adults and middle-aged patients in initial doses of 15 drops on sugar, increasing to 25 drops in a few days, four times a day. The fluid extract has a bitter taste, but the patients soon get used to it, especially as in most cases the cough quickly ceases to be harsh, the expectorations become liquefied and gradually diminish. In older patients in chronic bronchitis I used smaller doses, from 10 to 15 drops three to four times a day, as I found that larger doses had a depressing action on the heart. I had the same results in the old and young. About nine-tenths of my cases of chronic bronchitis were benefited by its use, if not taken for too long a time. In from three to four weeks I stopped the drug, as it deranged the stomach

if continued longer. In phthisis I used the drug in 20 cases, and for the purely bronchial cough I had also good results in most cases, but the cough due to other than bronchial causes was not relieved. The dose used was the same as in the former cases, with the same diminished dose for the older patients. The drug also increased the appetite and my patients, therefore, derived a double benefit from its use. How the drug acted as an expectorant is not quite clear. The physiologic action of hydrastis is as an astringent bitter, promoting the appetite and digestion, increasing the secretions of the gastro-intestinal tract; and the flow of bile. It is claimed to be an antiperiodic and a protoplasmic poison, arresting the movements of the white blood corpuscles. The alkaloids found in the root are hydrastin and berberin. Bartholow has made extensive investigations as to the action of hydrastin, finding that in medical doses it stimulates the vaso-motor system, causing contraction of the arterioles and raising the arterial tension accordingly; that berberin contributes nothing to the impression made on the nervous system, although he thinks that the stomachic and cholagogue action must be, in part at least, referred to the latter alkaloid. Hydrastin, according to Sanger, has no action on the cough, and it must be concluded that a combination of both alkaloids as found in the root has an influence on the mucous membrane of the bronchial tubes, stimulating healthy secretion and influencing in this way the expectoration.

THE PHILADELPHIA POLYCLINIC

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PHILADELPHIA, OCTOBER 9, 1897

SENSATIONAL JOURNALISM CONCERNING MEDICAL SUBJECTS.

NEWSPAPER articles on topics of medical or surgical interest are frequently incorrect, and at times false. They mislead the public by misstating facts and misquoting authors and speakers, thus placing the latter in a false relation to the public and the profession. Were the effects of such publications purely local, the matter might be passed by without further comment than an expression of regret that the people's morbid desire for sensational journalism should cause such articles to be written; but these same accounts are copied, quoted, twisted, and misconstrued until the final and widely circulated version bears but a slight resemblance to the original, which was itself probably inexact. "Mysterious and past finding out" are the conceptions of medical phenomena in the minds of the majority of newsmen. No doubt the credulity as well as the gullibility of the public has much to do with the shape taken by medical "write-ups," but aspiring as it does to the title and position of a public educator, the press might give a little attention to the truth of the scientific matters it publishes. Certainly there is much room for work in this direc-

tion, and no doubt great good could be accomplished by such a course.

Several years ago a most wretched and degraded specimen of the morphin and cocain user came to one of our largest hospitals begging for a hypodermatic injection of cocain. This was refused and he was sent away, but not until his history was obtained and in a great measure verified by a physical examination. This history was given without name to a reporter, a friend of one of the physicians, who was very anxious for "a good case." Much care was exercised by the physician that facts alone should be stated, and that the account should be correct throughout. When carefully compiled, the reporter sent in his copy and it was promptly thrown into the editorial waste-basket as being "too stiff to believe." Yet the same journal has frequently published accounts of cases which, to the well-informed, are evidently inaccurate, to say the least. Verily, "Truth (in some newspaper offices) is stranger than fiction."

A very recent example of newspaper misquotation and misstatement was the report of Chipault's operation for Pott's disease and scoliosis. It was heralded by the newspapers as a new treatment *for all classes and conditions of cases*; pictures of surgeons performing the operation, as well as its various steps, were shown; and M. Chipault was exhibited in the light of a quack or impostor in that he claimed to have discovered a "cure all." According to his own account, the operation is indicated only in the very early stage of Pott's disease and scoliosis, before there has been any loss of bony structure in the former condition, or change of form and rigidity of the spine in the latter; but according to the newspapers, it is to revolutionize the treatment of these diseases, and is to be used regardless of the stage of the disease or degree of the deformity.

A certain amount of theorizing and reas-

oning by analogy is necessary in medical work, but a thorough knowledge of practical medicine is an indispensable preliminary to this. When one without technical knowledge attempts to describe conditions and actions with which he is unfamiliar, he soon becomes lost, and, calling upon his imagination for rescue, the result is a newspaper story, wonderfully luminous to the lay mind, but absolutely incredible to the physician.

If medical articles must be published in lay papers, some care should be exercised to have them conform to truth. If this is too much trouble, the article should not be published.

J. T. R.

In the Clinics

A case of *molluscum contagiosum*, appearing in the clinics, was traced to a pet pigeon belonging to the patient, a girl of 10. Both eyelids of the pigeon were affected, but owing to the refusal of the patient, microscopic confirmation of the nature of the growth was impossible.

THE vast majority of cases of *acute urticaria* or *hives* are due to intestinal ptomaine poisoning. Knowing the cause, the treatment is self-evident; free catharsis followed by the use of intestinal antiseptics. Such cases are given, in the skin department, a calomel or saline purge, and later salol in 7-grain doses to be taken after meals. The local treatment is just as simple, consisting in the use of anti-pruritic washes, such as carbolic acid or menthol, 5 to 10 grains to the ounce.

FOR the relief of the *asthmatic paroxysm*, Dr. S. Solis-Cohen finds nothing better than a combination of

Morphin sulfate, ...	$\frac{1}{8}$ to $\frac{1}{4}$ grain
Strychnin sulfate, ...	$\frac{1}{16}$ to $\frac{1}{8}$ grain
Hyoscin hydrobromate, ...	$\frac{1}{16}$ grain

given hypodermatically at bed time. In some cases its repetition is unnecessary. In other cases after two or three injections complete relief from the attack has been observed. Of course there are obstinate cases of asthma in which this gives only temporary relief, and in which considerable caution must be exercised as to its repetition.

Society Proceedings

THE PHILADELPHIA COUNTY MEDICAL SOCIETY.

September 8, 1897.

DR. JOSEPH PRICE, of Philadelphia, read a paper on

A SERIES OF ABDOMINAL SECTIONS.

I should hesitate to present a group of specimens from my own operating table if I did not feel they had an educational value. That is their only value, presenting to the eye, as they do, the conditions for which the respective operations were done. They demonstrate and teach practically, and very generally give rise to interesting and instructive discussions. We speak better from our own experience, our own observations, our own operating tables, than from any other standpoint. We speak better from that standpoint than from another for the reason that the lessons we practice in our work are those of our experience and observation. They have been gained by very many leanings over a table. We speak more practically, less theoretically. There is less hypothesis and more fact.

I cannot do better than call attention to the mixed nature of intra-peritoneal and intra-pelvic troubles and the serious pathological sequelæ incident to their development. The simple removal of a growth is common and easy—and the least part of the surgery. The real surgery, the test of patient skill, comes in when adhesions, twists and distortions of the viscera are to be corrected and pathologic lesions of important viscera to be cleaned, trimmed and repaired. These are commonly the most important steps in abdominal operations.

In this connection I shall cite one or more cases, and exhibit specimens. This large tumor filled the entire abdominal cavity. Its pedicle was small and easily managed. But the upper portion of the large mass was firmly adherent to the transverse meso colon or was completely imbedded in it. The freeing of the colon required a careful repair of its mesentery, as well as of portions of the large bowel. In from six to ten per cent. of the cases of tubal and ovarian disease it is necessary to remove the appendix, repair the head of the cecum, free the adherent ileum and resect or repair its lesions. Sometimes the adhesions vary from a few inches to two or three feet in extent. Again, in puriform disease of tubes and ovaries lesions of the rectum and sigmoid are quite common. Inspection and repair are vital, and if carefully effected the lesions heal kindly and quickly, and there will be an avoidance of many of such uncomfortable post operative complications as fecal fistulae, sinuuses, post operative adhesions, and the generally tedious convalescence associated with the method of dealing with such cases without repair. The great number of men who do, or attempt to do, abdominal work and refuse or hesitate to repair carefully visceral lesions, is simply surprising. Really this is one of the most important features of the work. A number of deaths are largely due to the simple removal of the growth and doing nothing more. The adhesions and kinks of the bowel favor early distention and obstruction, with nausea and vomiting, which then occur, usually on about the third day. Such complications as these are always favored by the failure to employ drainage.

The practice of employing drainage carefully placed and well cared for, never fails to give the best results. While condemning drainage by the supra-pubic route many surgeons have tried the lower route in connection with which about all the methods are imperfect, incomplete, and fail to effect cures. There is marked inconsistency in the teaching of such men to drain after every operation and by all known methods. It is curious that they should contradict the value of drainage in supra-pubic work when they rely so absolutely upon it when operating from below. Drainage has served a great purpose in establishing a variety of

operations, thus relieving a variety of pathologic conditions. This fact is forcefully illustrated by this interesting and instructive group of specimens. Yet specimens and illustrations give no fair or adequate idea of the enormous extent of adhesions dealt with—nor of the numerous sutures used in the repair of bladder or large and small bowel in any given case. In a few cases resections were necessary for disorganization due to suppuration or malignant disease. In three cases I resected the large bowel; all the patients recovered. The specimen of cecum and ileum is of sufficient importance and interest to justify a special report and discussion. There is much fine surgery done at present—but it remains important that the refined principles and practices of the successful surgeon should be promulgated by papers and discussions in our societies.

Practical discussions are of immense value to the general practitioner and to those especially who by reason of locality are without the advantage of society meetings and the clinical object-lessons there given, and of the lesions conveyed to those witnessing such operations as are illustrated by the group of specimens here presented. I find that the man who leaves his home and work for a few weeks to witness operations at the table is a thrice more useful and important man in his community after his return. Before leaving home the probability is that he never saw, to clearly recognize or diagnose, suppurating appendages, ruptured tubal pregnancy, appendicitis or virulent troubles, such as suppurating dermoids, twisted pedicles of cystomata, in his town or community, but when he gets home he finds them in large numbers, and he commonly becomes a specialist.

Much of this work is done at the home of the patients. In clean homes, with clean environment, I am satisfied results are the best, better than those in hospitals—where there is always an element of contamination. The admission of patients suffering from carcinoma is contaminating in private and public hospitals. Work to be successful, must be free of filth. All large cities and States should have a hospital for cases of carcinoma. Puerperal sepsis is especially virulent. Four times I have been poisoned and made very ill from operations for acute post-puer-

peral suppurative peritonitis—the patients all recovering. We scarcely have a stitch-hole abscess or a coated tongue when the hospital is free from cases of carcinoma and septic patients.

As yet we have not succeeded in educating the profession in the importance of early interference in all intra pelvic and peritoneal disease. In and about this city tapping cystomata is a common practice. The subjects of many of these operations are greatly emaciated and many feeble beyond locomotion. They are carried into the hospitals on arms or on stretchers and some are too ill for transportation. In my own work the mortality has been low. I have lost four cases in a large series of mixed operations. The specimens are not all here.

Early diagnosis leads to early surgical interference. The pus cases, ectopic pregnancies, appendicitis and twisted pedicle all belong to the important group requiring the earliest possible interference. The diagnosis made, there is but one treatment. Every careful clinician should have experienced assistance and counsel when he has even a suspicion of any of these troubles—and should not make the choice and accept the opinion of one who commonly says: "We will see when we get in."

Mrs. M., aged 40 years, had an ectopic pregnancy on the left side. Rupture took place about a month before the patient came under observation. The omentum was firmly adherent to uterus and bladder and beneath it sigmoid and ileum were also adherent to uterus and bladder. The operation included freeing of all adhesions, enucleation of the sac filling the pelvic basin. The tissues were friable and disorganized. Drainage was provided for.

Miss J. H., aged 18, had a double pyosalpinx, with adhesions of omental and bowel. Twelve inches of the ileum were strongly adherent and repair was necessary. Clean removal of both sides was effected, the tuber being cut out of the uterus.

(To be continued.)

News Item

THE Ninth Annual Meeting of the Tri-State Medical Society of Alabama, Georgia, and Tennessee, will be held at Nashville, Tennessee, October 12th to 14th inclusive, 1897. All railroads will give reduced rates to the Tennessee Centennial. This meeting promises to be the most successful ever held by the Society. Titles of papers should be sent to the President, W. F. Westmoreland, M.D., Atlanta, Ga.

BOOKS RECEIVED.

A PRACTICAL TREATISE ON SEXUAL DISORDERS OF THE MALE AND FEMALE. By Robert W. Taylor, M.D., Clinical Professor of Venereal Diseases in the College of Physicians and Surgeons, New York. Octavo, 448 pages, with 73 illustrations and 8 plates in color and monochrome. Lea Brothers & Co., New York and Philadelphia. 1897.

ARCHIVES DES SCIENCES BIOLOGIQUES. Publiées par L'Institut Impérial De Médecine Expérimentale à St. Pétersbourg. Tome V. No. 4 et No. 5. St. Pétersbourg, 1897. Edition française.



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THE PHILADELPHIA POLYCLINIC

VOL. VI—No. 42

OCTOBER 16, 1897

A THIRD RECORD OF DERMATOLOGIC THERAPY,

BY J. ABBOTT CANTRELL, M.D.

Professor of Diseases of the Skin in the Philadelphia Polyclinic and College for Graduates in Medicine, Dermatologist to the Philadelphia and Frederick Douglass Memorial Hospital.

IN recapitulating the work of the skin department in its records of therapeutic tests during a period covering somewhat over a year, I wish to draw attention to the value of certain drugs applied to affections of the skin.

The first of the papers emanating from this department during the period, presented the results obtained by the use of calomel (Calomel in Skin Diseases, *Medical and Surgical Reporter*, May 30, 1896, vol. lxxiv, No. 22, p. 681). The conclusion that "Of the mercurial preparations calomel has proved of most service in the practice of dermatology" is maintained by later experiences. The manner of applying this drug was in the form of solutions in lime water (*lotio nigra*) $\frac{3}{4}$ to 2 per cent.; in oil (preferably olive) 3 to 6 per cent.; and in petrolatum (liquid) the same. With lanolin, petrolatum or zinc oxid ointment from 2 to 12 per cent. The choice of basic substance is governed by the location and condition of the disease. In eczema this drug proved exceedingly serviceable when the condition was of local attack, as in the vesicular or pustular varieties or when eczema rubrum had supervened, but the squamous forms were not in the least benefited. Local hyperidroses of the hands or feet were impressed favorably, while ivy poisoning recovered more slowly than with

other remedies. Diseases of the sebaceous glands as well as the superficial variety of ringworm were cured in most instances, but the drug failed to prove itself advantageous in either ringworm of the beard or scalp. The drug acted beneficially in tinea versicolor and in contagious impetigo. Simple pruritus failed to receive benefit, while localized varieties such as those affecting the anal region became much less troublesome. Syphilitic and benign ulcerations healed rapidly under its use while the secondary manifestations of syphilis and the hereditary form of the affection gave evidences of curative impress. Affections of the nervous system such as simple herpes and herpes zoster manifested a favorable result. Eruptions following the effect of heat, as miliaria or pustular conditions, as in children, were benefited.

Sulfur, which formed the basis of the second paper (Sulfur as a Dermatologic Remedy, PHILADELPHIA POLYCLINIC, June 6, 1896, vol. v, No. 23, p. 223) was given extensive experimentation resulting finally in the choice of the following solutions: Kummerfeld's, Vleminckx's and the so-called *lotio alba*, consisting of 4 per cent. each of zinc sulfate and potassium sulfide in a watery vehicle. Ointments of both sublimed and precipitated powder were advised in ratios

of 2 to 10 per cent. with lanolin, petrolatum or ointment of zinc oxid as well as Helmerich's and Wilkinson's formulæ. Powders at times were given in full strength or diluted with bland powders like lycopodium or calomine powder. Of the diseases in which sulfur was experimented with, eczema and scabies showed quick results. Diseases of the glandular system, both sebaceous and sweat, were found greatly benefited by its use, while cases of chilblain and other forms of dermatitis seemed to be cured. Scaly eruptions and affections due to the trichophyton tonsurans were effectually and quickly relieved. Dermatitis herpetiformis and several other outbreaks also benefited by its administration. Verrucous growths were not only diminished in size but the majority presented a clear base. From the records of this clinic there is no doubt but that this drug is rather underestimated than otherwise and consequently worthy of greater trial.

Later the results gained in the use of Aluminum-naphthol-sulfonate (Alumol in Dermatology, *American Therapist*, July, 1896, vol. v, No. 1, p. 6) were reported. This drug was advised in powders from 12 to 25 per cent. with either powdered starch, lycopodium, kaolin or fuller's earth; with petrolatum, lanolin, rose ointment or zinc oxid ointment from 2 to 12 per cent. (the choice being governed by the inflammation and exudation present); in solution with water, liquid petrolatum or collodion in strengths of from 12 to 50 per cent. This remedy proved efficient in all forms of eczema, intertrigo and dermatitis where exudation formed a complication. Non-parasitic sycosis was cured in one instance, but other cases were not even relieved. Contagious impetigo, tinea versicolor, scabies and pediculosis did not respond as quickly as with other remedies. Herpes zoster, ulcers of both syphilitic and benign types, erythema

multiforme, ecchyma, furuncles and carbuncles were improved, while acne, acne rosacea, erythematous lupus, psoriasis, seborrhea, pityriasis capitis, dysidrosis and hyperidrosis were unimproved by its use.

Dithymol-diodid (Aristol as a Dermatological Remedy, *American Therapist*, September 1896, vol. v, No. 3, p. 51) was used in lanolin from 2 to 15 per cent.; in powder with either lycopodium or fuller's earth from 10 to 25 per cent. The conclusions formed can easily be detected from the following which referred to ulcers: "The experience gained in my work with this remedy proves it to be a decided stimulant, and in applying it to ulcerations it was found beneficial in the more chronic, but if advised in acute or highly inflamed sores it soon gave decided pain with increase of the inflammation." Eczema, where thickening had occurred, epithelioma in its earlier stage, and tinea circinata were among the affections cured. Psoriasis as well as acne, erysipelas and furuncles did not improve at all.

Isobutylorthocresoliodid (Dermatological Uses of Europhen, *American Therapist*, December 1896, vol. v, No. 6, p. 121) was used as follows: Ointments of 2 to 10 per cent. with either petrolatum or lanolin, alone or in conjunction, or with one of the above in similar strength with the addition of boric acid. Powders from 2 to 25 per cent. with boric acid and solutions from 2 to 20 per cent. with olive oil. Ulcerations formed the larger class in which this drug proved beneficial, and it was noted that the result was gained in a much shorter time than with most of the iodine derivatives. After certain granulations had formed in the non-syphilitic ulcers a change from powders to ointments proved greatly beneficial. Tinea circinata, tinea versicolor and eczema, of all acute stages, were benefited, but erysipelas, psoriasis, epithelioma, lupus, tuberculosis and acne did not improve.

Tetraiodopyrrol (Iodol in the Treatment of Ulcerations, *Dunglison's College and Clinical Record*, March 1897, vol. xviii, No. 3, p. 56) was used in the treatment of ulcerations, generally in powders, beginning with a strength of 12 per per cent. with either powdered starch or lycopodium and gradually increasing until the proper strength was found,

which only in a few instances reached as high as 50 per cent. Ointments from 3 to 25 per cent. with either petrolatum or zinc oxid ointment were advised later. It was always found preferable to use a powder in the early treatment of these ulcerations, and after a certain amount of granulation had commenced, to change to an ointment.

PENETRATING WOUND OF EYEBALL; EXTENSIVE HEMORRHAGE INTO VITREOUS; RECOVERY.

BY FLORENCE MAYO, M.D.

Instructor in Diseases of the Eye, Philadelphia Polyclinic.

Mrs. P., aged 65, came to me, December 18, 1896, saying that three days previously she had run the thorn of a century plant into her left eye, since which time the eye had been blind.

Examination showed an ecchymosis of both lids extending down upon the cheek, and a subconjunctival hemorrhage completely hiding the sclera. A horizontal linear wound of about 2 mm. was found over the insertion of the external rectus. The pupil was small but reacted promptly to light. The fundus reflex was absent. Tension was minus. There was no pain.

The patient appeared to be as greatly worried over the appearance of the eye as over the loss of sight, and had been bathing the eye almost constantly after the injury with warm water. To this I attributed the extensive hemorrhage into the conjunctiva and loose tissues of the lids, although I knew that she had a tendency to bleed freely, having been obliged a year previously to pack the nose to control a persistent epistaxis.

On account of the danger of infection from the wound, and of detachment of the retina from the large hemorrhage, and the impossibility of determining the presence of a foreign body in the eye, an unfavorable prognosis was given.

V. in O.D. = $\frac{1}{2}$. Media and fundus normal, low H.

Instillations of atropin sulfate for O. S. twice daily were ordered; also sodium iodid 5 grains three times daily.

December 21, O. S. V. = $\frac{1}{2}$. Faint reflex in the upper part of the pupil. The subconjunctival hemorrhage disappeared and the vitreous gradually became clearer until March 29, 1897, when V. = $\frac{1}{2}$. Good reflex, large floating opacities in the vitreous. No detachment of retina.

April 26, 1897, V. remained the same. The eye was entirely free from irritation. Vitreous clearing. One linear opacity was discovered which was thought might be the suspected foreign body.

Owing to an accident which confined the patient to her room for two months the eye was not examined again until June 28, 1897, when V. = $\frac{1}{2}$. + 1.25 D. Sph. = $\frac{1}{2}$. All vitreous opacities, including the supposed foreign body, had disappeared. The media were entirely clear.

The unusual penetrating body, whose presence in the eye, owing to its peculiar structure could not have been detected by the X-rays, the entire freedom from infection, and the complete recovery, give more than ordinary interest to this case.

Society Proceedings

THE PHILADELPHIA COUNTY MEDICAL SOCIETY.

September 8, 1897.

(Concluded from page 418, Vol. vi, No. 41.)

DR. JOSEPH PRICE, of Philadelphia, read a paper on

A SERIES OF ABDOMINAL SECTIONS.

Miss M. C., aged 38, had supravaginal hysterectomy performed by the Koeberle method. The uterus was large and symmetric but free from fibroid nodules. The appendages were healthy. The tumor was muscular in appearance and situated within the uterus. There was a history of rapid growth. There were no adhesions and the operation was simple.

Mrs. L. N., aged 35, had an extra-uterine pregnancy on the left side. The abdomen was filled with blood, rupture having taken place five days before the operation. The patient had the common history of recurring paroxysms of pain, was blanched, and her whole appearance was that of one bleeding. She had been nursing an infant. Ectopic pregnancy has occurred during lactation six or more times during my experience. The symptoms have always been alarming. Prolonged lactation seems to favor extra-uterine pregnancy. The patient had been sterile since the birth of a child or the occurrence of a miscarriage, six or ten years ago. This was followed by a history of some pelvic mischief. There had been a delayed period or absence of one or two periods. Then there occurred sudden severe pelvic pain, with the usual symptoms of loss of blood or concealed hemorrhage. The doubtful abortion was followed by a prolonged bloody discharge,—commonly lasting two or more weeks. This is a common history. The objective signs are easily recognized, the uterus being enlarged and pushed to one side by a boggy mass. This is extremely tender, and commonly unilateral. Occasionally the boggy mass is absent. There is but little clot, but an enormous quantity of blood is present. There are further central distension of the abdomen and marked tenderness. The nervous symptoms are interesting and of value in diagnosis.

Mrs. K. M., aged 35, had a multi-nodular fibroid of the uterus with right hydrosalpinx. The left tube and ovary were healthy. There was a history of doubtful miscarriage years ago and symptoms of tubal disease of long standing. There had been rapid growth of the fibroid in the last six months. Extra-peritoneal hysterectomy was performed.

Mrs. K. H., aged 27, married four years, had no children, but complained of pelvic pain since July, which confined her to bed. Operation was performed for ruptured tubal pregnancy left side, drainage being provided for.

Mrs. S. R., aged 47, had an intra-uterine malignant growth and had submitted to repeated curettements by other attendants. Vaginal hysterectomy was performed with the aid of clamps.

Mrs. S., suffered from complete procidentia, bladder and bowel being prolapsed. A growth had formed upon the posterior lip of the cervix. Vaginal hysterectomy was performed with the aid of a clamp and recovery ensued.

Mrs. A. (colored), woman had borne no children, and presented a multi-nodular fibroid, which had been recognized some years before. There were found numerous small masses completely filling the peritoneal cavity. Adhesions were general to the viscera and the loins. The appendages occluded and fixed. Clean extirpation was practised and drainage provided for. Recovery took place.

Typical case of Tubal and Ovarian Abscess.—A married white woman had double pyosalpinx, double ovarian abscess, with leaking into the peritoneal cavity. Clean enucleation was effected. Irrigation practised and drainage provided for. Recovery took place.

Mrs. G., aged 46, had double pyosalpinx and general adhesions. The right tube was enormous. Section was performed, with clean removal of both sides. Irrigation was practised and glass drainage employed. Recovery took place. This case illustrates beautifully how some pus-tubes can be enucleated without leakage.

Mrs. M. G., aged 24 years, had borne one child, and had double pyosalpinx and double ovarian abscess. There were universal omental and intestinal adhesions. Sec-

tion was performed and all these were freed. Both tubes and ovaries were removed. Irrigation was practised and glass drainage provided. Recovery ensued."

Concretion of the Appendix. — Master —, aged 9 years, was subjected to extirpation of the appendix and freeing of adhesions. The peritoneal cavity was washed, its toilet made, and drainage provided for. Rapid recovery followed.

Mrs. B., aged 30, had borne one child, and had one miscarriage. Perforating ulcers of the ileum were found. Large cluster of small bowel were generally and strongly adherent. There was a large puddle of pus in front, and posterior to the left broad ligament. The ileum was freed throughout and 30 inches of disorganized bowel resected. A Murphy button was employed. A dirty pus sac on the left was curetted. Free irrigation was practised, and gauze and glass drainage employed. The patient died. She was dying when she entered hospital. Had been ill for three weeks.

Miss —, had never been pregnant, and presented tumor of the right vaginal vault. Sarcomatous extirpation of uterus and tumor was effected by means of forceps and ligature. The hemorrhage very free and difficult to control. Recovery took place.

Mrs. —, had borne three children, and had been ill for many months. She was feeble and emaciated, and had a high temperature. There was constant abdominal distention. Tubes and ovaries were fixed by disease. There were occluded appendages with retention. The disturbance of the bowel had been primarily overlooked, but after the section she did well for two weeks, when symptoms of perforation occurred, and lasted for a week. The patient died on the twenty-first day. I did not see this patient after the operation.

Mrs. S., aged 46, had borne no children, and had no miscarriage. She presented a large edematous myoma, studded with small fibroid nodules. The appendages appeared healthy. Supravaginal extra-peritoneal hysterectomy was performed with the aid of the Koeberle *noeud*. The incisions over this tumor show how tumor was deperitoneized to make the pedicle. Recovery took place.

Miss Z. L., aged 40, presented a multi-nodular fibroid, with a pus-tube and an ova-

rian abscess on the right. Supra-vaginal extra-peritoneal hysterectomy was performed with the aid of the Koeberle *noeud*. Recovery ensued. Nine or ten years ago, I removed a suppurating dermoid from the left side of this patient, with a general suppurating peritonitis. All intestinal adhesions were freed at that time and remained free after the irrigation and drainage.

Mrs. H., aged 55, had borne six children and had one miscarriage. There was found a multi-nodular fibroid the size of an adult head. Intra-uterine malignant disease was also present, together with a small malignant tumor of the right ovary, the size of an orange. There was beside a large umbilical hernia, full of omentum and small viscera. Section was performed and total extirpation practised. The hernia was closed. The incision in this case extended from the ensiform cartilage to the pubes. Recovery took place. There was really too much surgery required for one operation, as dissection of a huge ventral hernia was required to the hollow of the sacrum for the removal of the fixed diseased tubes and ovaries.

Mrs. F., aged 38, had a multi-nodular fibroid of the uterus with suppurating appendages and universal pelvic fixation. A clean extirpation was effected. Recovery ensued. Two weeks before the operation this woman had an angry peritonitis. A good operator saw her in consultation, and thought her condition unpromising for operative interference. Ten years ago I had enucleated a large ovarian abscess from the left side. The patient was then septic and very ill. A fecal fistula followed the toilet and drainage, but rapidly closed. The last operation, four weeks ago, was an exceedingly complicated one. The enucleation was difficult, as the fibroid and the diseased appendages filled the entire pelvis. Intestinal adhesions were general and required repair. In short, a resection seemed indicated. Irrigation was practised and drainage provided for.

Mrs. K. McG., aged 38, has had no children. She presented a dermoid cyst on the left side. The uterus was studded with small fibroids. Section was performed, with the removal of the cyst and also of the right tube and ovary. Recovery took place.

Mrs. C., aged 27, has borne one child. An extra-uterine pregnancy was found occu-

pying the left tube, with general adhesions of omentum and bowel. Section was performed and the omentum freed. The sigmoid was folded over the distended tube and freed. The left tube was repaired. Irrigation was practised and glass drainage provided. Recovery took place.

Mrs. H., aged 30, has borne no children. A vaginal incision had been made, puncturing into the right broad ligament for ectopic pregnancy. Left pus tube was generally adherent. A right tube and a disorganized ovarian abscess were present, together with firm, deep, general adhesions. Enucleation of the punctured side was very difficult, Cecum and ileum were adherent to the diseased ovary on the right side. There were firm omental adhesions. Sections were performed and omental and intestinal adhesions all freed. Extensive stitching of the bowel was required. Removal of both appendages was effected. Irrigation practised and Koeberle *noeud* was employed. Recovery ensued.

Miss —, a schoolteacher, presented a large myofibroma, with free, irregular bleeding and pressure symptoms. The incision from tube to tube on the anterior aspect of the tumor and the deperitoneization of the tumor show in this case very beautifully how the broad ligaments are carried up and over such growths. The sinuses in this case were as large as fingers on both sides. In this operation a Koeberle *noeud* was employed. Recovery ensued.

Mrs. S., aged 34, has borne one child and had one miscarriage. An operation for ectopic pregnancy had been performed five years ago. A large multi-locular cyst was found extending to the umbilicus and deep into the pelvis. There were universal and pelvic adhesions. The sigmoid was attached to the posterior wall of the cyst for 12 inches. The bowel opened in the course of the enucleation and both ureters were exposed. The left ureter was dissected out of the left wall of the cyst. The iliac vessels were laid bare. The cyst was enucleated and the sigmoid repaired. Irrigation was practised and drainage provided for. General malignant invasion had, however, taken place in the surrounding viscera.

Mrs. M., aged 20, had had one miscarriage. She presented double pus-tubes and an ovarian abscess. There were general and

dense adhesions. Section was performed and removal of both tubes and ovaries effected. All adhesions were freed. Glass drainage was employed. Recovery ensued.

Current Literature

Differential Diagnosis of Plague and Enteric Fever, as given by Surgeon-Captain J. S. Hojel in *Indian Medical Gazette*.

Plague.

1. Onset sudden, usually ushered in by well-marked rigor.

2. Temperature shows a high initial rise in most cases, followed by a marked remission to normal or a little above or below it on 2d, 3d, or 4th day.

3. Pulse, large and full at first, peculiarly soft, great want of sharpness in stroke, very compressible at an early stage and dicrotic, but the dicrotism is not very easily recognized by the finger.

4. Aspect dull, heavy and apathetic; has a peculiar stricken look.

5. Eyes dull and muddy looking, conjunctivæ suffused, pupils mostly normal, general flushing of face.

6. Diarrhea simple, but very offensive (when present).

7. Delirium and other cerebral disturbance early and great prostration from the first.

8. Abdominal distention early, 3d, 4th, 5th day.

9. Eruption not readily effaced, a "deep red color, petechial."

10. Severe lumbar pain in many cases.

Enteric Fever.

Insidious in onset, may have "chills."

A gradual rise to end of first week, with slight daily remissions.

Pulse moderately large, walls of vessels relaxed, beat sharp and short, dicrotism well marked and easily distinguished.

Not so, but often has a bright, energetic appearance.

Eyes bright and clear, no suffusion of conjunctivæ, pupils dilated, a circumscribed malar flush.

Diarrhea "pea soupy."

Later, towards end of severe cases.

Later.

Eruption readily effaced, "rose red color, non-petechial."

Slight.

To these may be added the condition of the tongue (when present as above described) and the decubitus (unreliable signs, in my opinion), and the history.

THE PHILADELPHIA POLYCLINIC

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PHILADELPHIA POLYCLINIC,
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PHILADELPHIA, OCTOBER 16, 1897

MASKED MALARIA.

BEFORE the general adoption of microscopic examination of the blood as a diagnostic test for malaria, much more was written and spoken concerning irregular and misleading forms of chronic malaria, than one meets with in literature to-day. Is it possible that the old diagnosis was a mistake, and that the conditions described as masked malaria were of a different nature? It is true that they were usually relieved by quinin or arsenic or both, but the therapeutic test is not conclusive; for other conditions than malarial intoxication may be relieved by the antiperiodic remedies.

In our recent practice we have rarely been able to find malarial organism in the cases referred to. This does not prove their absence, but at least suggests the impracticability of relying upon their presence for the diagnosis, if the cases are in reality malarial. In some cases considerable disorganization of the blood has been observed; the red corpuscles being deformed and much reduced in number, yet parasites never found, even by experienced laboratory workers. We have in mind one such case, with a history of malarial attacks recurring annually for many years; usually in September or October. In

one attack the paroxysms were typical, and the organisms readily demonstrated. This attack was prolonged and obstinate, but finally yielded to treatment. The following year periodic gastric crises replaced the classic paroxysms of ague. Malarial organisms were found in the blood rarely and in small numbers. For three successive years there have been autumnal gastro-intestinal crises of diminishing severity, the blood, much improved in all respects, being apparently free from organisms. Of course the hypotheses, of neurotic periodicity, of expectant attention and the like, are suggested; but to us the history is clearly in favor of the diagnosis of masked malaria.

Another point worthy of note is that while cases diagnosticated as masked malaria, as well as the frank attacks of chills and fever were unusually numerous in Philadelphia during four or five years while the repaving process kept the streets upturned in various sections of the city, last year they were fewer, and during the present autumn are not at all frequent in the repaved sections. Whatever the cause of malaria, its association with disturbance and upturning of the soil seems to be too marked to be merely a coincidence. It is not to be overlooked in this connection, however, that whether accidentally or otherwise, mosquitoes were more numerous in the city during the repaving period than they have been during the present year, and that the mosquito serves in some way to propagate the malarial organism seems very probable.

S. S. C.

Editorial Notes

"For ways that are dark and for tricks that are vain," the Heathen Chinese is "not in it" with the nostrum advertiser. We do not refer to the frank, outspoken, newspaper-advertising patent medicine men, but to those whose cards go to "the profession only," and often find place in medical jour-

nals of good repute. A favorite device is to quote a teacher or writer of eminence, and stopping in the middle of a sentence, tack on something about the nostrum advertised; thus conveying to the thoughtless or hasty reader the impression that it is recommended by the teacher quoted. One of the most flagrant of these tricks we have recently seen is a "reading notice," purporting to quote Drs. Mitchell, Mills and Sinkler as to the treatment of nervous disorders in women. The advice to use a certain nostrum is so cunningly inserted that doubtless many have been deceived. We were much surprised at finding this particular fraudulent quotation in the "Publishers' Department" of a journal which is among the most interesting of our exchanges, and always clean editorially.

But, without reflection upon our contemporary, we may wish that clean editors would insist that their publishers' departments also be clean. The "wicked partner" excuse should be left to the politicians. If the really reputable medical journals of the country would unite to exclude nostrum advertising of all kinds, they would strengthen themselves with both readers and reputable advertisers, and the miserable hangers-on of medical journalism would be so readily discerned by the character of their advertising pages, that they would cease to deceive the most guileless. How can one of our excellent contemporaries continue to inveigh editorially against newspapers, patent medicines, and quacks, while its own columns are filled with the paid laudation of secret and often fraudulent preparations? In one thing at least *The Medical Record* of New York has set an example of decency. Since its advertising pages have been sold to nostrums it has ceased its thitherto perennial tirades against the certificate writing clergy and the religious press.

* * *

Who is to blame for the increased use of

nostrums and for the multiplication of patents and of trademarked names in connection with medicinal preparations; all contrary to the highest ethics of the profession and the best interests of science and humanity? Unquestionably the physicians themselves. If the profession had refused to use antipyrin until all restrictions and monopolies connected with it were removed, not only might much sad experience in the sick room have been escaped, but the lesson then taught manufacturing chemists would have been heeded, and the synthetic remedies that have so multiplied in the last fifteen years would have been introduced under legitimate and untrademarked names. It is true that the multiplication of names for one drug, and the trademarking of some or all of these are not sufficient reasons to give up the use of these drugs, now that the custom has become established, so long as the true composition of the drug is public knowledge. But when the composition of an alleged remedy is kept secret, there is no excuse for using it. The man who does so seems to proclaim his own ignorance and incompetency. Judging from the thousands of dollars spent in advertising secret preparations to physicians, either there must be a large number of ignorant and incompetent men practicing medicine, or a strange apathy as to the honorable traditions of the profession must prevail. Either horn of the dilemma is unpleasant to contemplate. We can scarcely discern which is the "lesser evil." It is useless, however, to throw blame on the manufacturers. They adapt themselves to circumstances. The blame, whether for ignorance or for apathy, belongs to physicians, and to them alone. From them alone can come the cure.

Send us ten cents in postage stamps, your name and address, and receive THE PHILADELPHIA POLYCLINIC for four weeks' trial. After that, you wouldn't take ten dollars to stop it.

In the Clinics

DR. VEASEY, in speaking of *serous iritis*, stated that greater caution should be exercised in the local use of *atropin sulfate* in this variety of iritic inflammation than in any other, on account of the great tendency of the intraocular tension to become elevated.

* *

DR. SCHAMBERG, in descanting recently upon the comparative merits of the remedies used in the treatment of *ivy poisoning (dermatitis venenata)*, remarked that none was a specific, but that all were designed to relieve the itching and burning, and subdue the inflammation. Of almost equal value are (1) saturated solution of boric acid; (2) fluid extract of *Grindelia robusta*, 1 fluidram to 4 fluidounces of water; (3) aqueous solution of sodium hyposulfite, 1 dram to the ounce; (4) Laborraque's solution, 25 per cent. to 50 per cent.; (5) Black wash diluted one half with lime water; (6) bromin, 10-15 minims to 1 ounce of olive oil.

* *

FOR *sudden heart failure* the hypodermatic administration of camphor has been recommended, according to the following formula:

Camphor 1 part.

Olive oil 10 parts.

Inject two syringefuls into each arm (about 5 c.c. altogether).

With the ordinary needle the injection is difficult, because of the thickness of the oil. One having a slightly larger bore has been found excellent. In a grave case now under Dr. C. C. West's observation, in which the patient has a number of times been absolutely pulseless and apparently lifeless, its use was followed by most gratifying results. It is given throughout the illness, whenever the pulse fails, to supplement other cardiac stimulants in constant use.

THE chief indications for *paracentesis of the drum membrane*, as practiced in Dr. Randall's ear clinic, are as follows:

(1) When there is great pain associated with a bulging membrane due to retained purulent secretion and the proper drainage canal through the Eustachian tube to the nares is impervious to gentle Politzerization.

(2) When the tension of the drum membrane is high, but the bulging is slight, because the membrane has been thickened by a chronic otitis media.

(3) When there is insufficient drainage for the pus and there is danger of the extension of the inflammation to the antrum and mastoid.

(4) When the pain is excessive and unrelieved by the hot douche, and the tension of the membrane is high, paracentesis may be performed simply for relief of the pain.

J. S. A.

Selection

CITIES AND THEIR MILK-SUPPLY.

AMONG the papers read before the national conference of Mayors and Councilmen held at Columbus, O., during the last week of September, was one on "The Influence of a Pure Milk-Supply on the Death-rate of Children," by Nathan Strauss, of New York, the founder of the depots for the supply of sterilized milk to the poor. In the course of it, he said: "There is practically no milk delivered for general consumption in cities that is fit to be fed in its natural state to young children." After having given a large number of mortality statistics and outlined the work done by him in establishing pure-milk stations in the city of New York, he went on to say: "I think I have fairly demonstrated the proposition that many thousands of infant lives are annually sacrificed by the neglect to supply for the nutriment of children milk which has been sterilized. I hold that neglect to be criminal, and I leave it to you to fix the responsibility for it. We punish murder with the penalty of death, and yet we allow murder to be committed by the wholesale in every populous community of this land, with no thought of its punishment and little thought of its prevention.—*The Boston Medical and Surgical Journal*, October 7, 1897.

News Items

THE twenty-third annual meeting of the Mississippi Valley Medical Association was

held in Louisville, October 5th to 8th, inclusive. The features of this meeting were excellent and timely papers, lively discussions, liberal entertainments and lovely weather, the whole being enhanced by the prevailing sentiment of Kentucky good-fellowship and hospitality. The Association has never been so lavishly entertained as at Louisville. The address on Surgery was given by Dr. Murphy, of Chicago.

The officers elected for the ensuing year were: Dr. John Young Brown, of St. Louis, President; Dr. A. P. Buchman, Fort Wayne, Ind., First Vice-President; Dr. A. J. Oschner, of Chicago, Second Vice-President; Dr. Henry E. Tuley, of Louisville, Secretary. The next meeting of the Association will be held on the second Tuesday in November, 1898, at Nashville.

New Publications

A PRACTICAL TREATISE ON SEXUAL DISORDERS OF THE MALE AND FEMALE By Robert W. Taylor, A.M., M.D., Clinical Professor of Venereal Diseases at the College of Physicians and Surgeons (Columbia College), New York; Surgeon to the Bellevue Hospital, and Consulting Surgeon to the City Charity Hospital, New York. With 73 illustrations and 8 plates in color and monotone. 8vo, pp. 451. Lea Brothers & Co., New York and Philadelphia. 1897.

The author's preface states that his aim has been to portray the various forms of sexual disorder in the male on the basis of advanced knowledge of the anatomy, physiology and pathology of the various portions of the sexual sphere. The failure of antecedent treatises on this subject to present to the reader clearly cut and practical information on these disorders rests on the fact that symptoms of sexual debility—termed functional disturbances and sensory and motor neuroses—overmastered the minds of the writers, and, as a result, no completeness of description whatever was attained; but, on the contrary, unimportant points were unduly magnified, essential ones slurred over or wrongly presented, gross errors were made, and a standard of real progress was not attained. While by classic custom it has become an author's duty to treat of various forms of sexual debility prominently as symptoms, the

underlying anatomic and physiologic conditions have never been lost sight of, and the light of pathology has been thrown on the picture as fully as our present experience will warrant.

Such subjects as varicocele, sexual neurasthenia, conjugal onanism, priapism, sexual erethism, and sexual perversion have been considered in a practical manner. In the matter of therapeutics much care and elaboration have been exercised, with the intent to clearly bring out practical and efficient methods of treatment indicated by the pathologic conditions producing the trouble. The subject of sterility in women is considered in a general manner with the idea of conveying to the mind of the reader the conditions which tend to render a woman infertile.

In the thirty-three chapters devoted to the various topics included in the scope of the book, the author has well carried out the objects he proposed to himself, and his work should help physicians to keep their patients out of the hands of the quacks. The publishers' work is excellently done.

* *

A GREAT deal has appeared in the newspapers at different times about aluminum, its properties and its uses. It was recently announced that contracts had been signed for the delivery in England of 1,000 tons of the crude metal of American manufacture. General interest in the subject has led the *American Monthly Review of Reviews* to publish the first complete account of the discovery of the American process for the reduction of aluminum by electrolysis. The story of this discovery (which resulted in bringing down the price of the metal from \$16 to 35 cents a pound) and its subsequent application in manufacturing on a commercial scale is one of the most interesting chapters in the recent annals of American industrial progress. America now makes as much aluminum in a year as all the countries of Europe together.



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THE PHILADELPHIA POLYCLINIC

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THE NATURE OF GLAUCOMA: AN EXPLANATION OF THE CURATIVE ACTION OF IRIDECTOMY.

BY DR. CH. ABADIE, Paris, France.

Translated by H. A. ROTHROCK, M.D., West Chester, Pa.

GLAUCOMA—acute and subacute—proceeding by crises, (passing troubles of the vision, circles around flames) can be explained neither by a permanent alteration of the sclero-corneal region, nor by the effacement of the irido-corneal angle, nor by a change of structure of the space of Fontana. To these permanent disorders should correspond the permanent functional troubles and not the transitory ones. The passing perturbations, disappearing without leaving any traces, presuppose the intervention of the nervous system.

The supposition of a nervous origin has already been advanced, but until now it has been to the fifth pair that we have attributed the preponderant action. The recent discoveries in the anatomy and physiology of the nervous system should remove the trifacial from a role to which it does not belong. It is a purely sensitive nerve, exclusively charged with transmitting peripheral impressions to the centers. It is centripetal and not centrifugal.

The trophic influence, which has until the present been ascribed to it in the nutrition of the eye, should be ascribed to the fibers of the sympathetic, which accompany it, and which enter then into the constitution of

the ciliary nerves. If one repeats, indeed, the classical experiments of Majendie and Snellen, the section of the trifacial to the end of determining the trophic troubles of the cornea, these troubles are no more manifest or are retarded in their development when one cuts simultaneously the sympathetic of the same side. These facts have been well brought to light by the labors of Spallita.

The same thing takes place in surgery where the ablation of the Gasserian ganglion is almost never followed by ocular complications. It is to the fibers of the sympathetic which follow this nervous trunk into the cranium to reach the eye, by means of the ciliary nerves, that we must attribute the principal role in the nutritive troubles of the eye.

This being well established, we propose to demonstrate that, in glaucoma, the symptoms occur as though there were an excitation, it may be passing (the acute form with crisis), it may be permanent (the chronic form), of the vaso-dilator fibers of the eye. Such is, I hope to prove, the true starting point of the disease. All the other symptoms and morbid phenomena spring from this one.

The augmentation of the tension results from the sanguinary repletion of the vessels and, perhaps, also of the hypersecretion of the intraocular liquids which is the consequence of this. François Franck has made this important remark that the vaso-dilators of the eye have the same origin and follow the same course as the dilators of the pupil. It is not astonishing then that the pupil is constantly dilated in glaucoma, the excitation of the dilator nerves occurring at the same time as that of the dilators of the vessels of the eye.

But the clearest proof that glaucoma is really provoked by a dilatation of the blood-vessels of the eye is furnished us by the action of the mydriatics and myotics. By the employment of these substances we are able at will to provoke or cause to disappear the glaucomatous symptoms. These agents are simply the dilators of the vessels of the eye as they are of the pupil. Atropin always aggravates, if it does not provoke the glaucomatous attacks. Moreover, atropin has an incontestable vaso-dilator action. Eserin on the contrary, diminishes constantly the intensity of the crises of glaucoma and it is vaso constrictive. One is able then, by the manipulation of these two drugs, to provoke or cause to disappear an attack of glaucoma. Have we not thus in hand the experimental proof of the true nature of the malady?

Iridectomy acts surely in acute glaucoma, in subacute glaucoma and in a general fashion in all the forms of glaucoma where the functional troubles are intermittent. What is the explanation of the curative action of this operation? The following are our ideas on this subject. In the normal conditions the nervous currents which govern the reciprocal relations of the dilatations and constrictions of the vessels travel through the circular plexus situated in the middle portion of the iris, in which end a certain number of ciliary fibers.

When the vaso-dilator nervous current is in play it circulates without interruption through this circular plexus and the dilatation of the vessels of the eye is the consequence. But if this plexus be cut the super-excitant action of the dilator current ceases; and all becomes normal. The bloodvessels have no more than their medium dilatation. *In iridectomy then it is not the excision of the iris itself which acts; but rather the excision of a portion of the nervous circuit that it encloses.*

The rigorous, well founded demonstration of this theoretical explanation is easy to establish. In an acute glaucoma, as has happened several times, if one excises simply the sphincter pupillaris, or simply the ciliary periphery of the iris, without touching the middle zone which contains the circular plexus, the operation has no curative power. If on the other hand one contents himself by excising the median portion of the iris, containing the nervous plexus, leaving intact the spincter and the ciliary portion, the cure is as complete as with the complete excision. It also makes but little difference if the wound in the iris be large or small, provided that it comprises the entire width of the iris. I go further: a simple section of the iris would be sufficient.

The proof that it is not, as some would have it, the sclero-corneal section, the sclerotomy that cures, is that if excision of the iris is not also performed, the respite is for a number of days only. If on the other hand the section is wholly within the corneal tissue, let the iris be well incised, and the success is as complete as when the section is placed in the sclerotic. This *ensemble* of proofs shows, I think, positively that it is truly the excision, or even the simple section of the nervous plexus contained in the iris, that causes the cessation of the glaucomatous phenomena.

(To be concluded.)

A CASE OF EUNUCHOID VOICE.

BY G. HUDSON MAKUEN, M.D.

Professor of Defects of Speech in the Philadelphia Polyclinic, etc.; Laryngologist to St. Mary's Hospital.

THE following case somewhat resembles what Dr. J. Solis Cohen has called the Eunuchoid voice.

The patient is a young man 17 years of age. He has always been strong and vigorous except on two occasions when he had pneumonia; the first attack at 13 and the second at 14 years of age. When he was convalescing from the latter attack the larynx underwent the change which is usual at that period of life and the voice presented a peculiar and unusual character. Instead of being a combination of the chest and falsetto tones, the former breaking into the latter as is common in the male voice at puberty, the chest tone was absent entirely and in its place there was complete aphonia. The voice was a mixture of a whisper with the falsetto tone, the one breaking into the other in a most curious manner and at the most unexpected times.

The patient usually began speaking in a whisper, which by very great effort he soon forced up into a peculiar falsetto squeak which seemed ludicrous to those not appreciating the serious aspect of the case. At times it was with great difficulty that he could even whisper or make himself understood at all, and being an exceedingly bright and intelligent youth his affliction bore the more heavily upon his mind and made the past three years of his life very miserable. The young man comes from the South, where the humorous side of life is well developed and his friends at first regarded the whole matter as a huge joke, called him a gosling and advised him to go back to long dresses. His nervous system was somewhat impaired by his recent illness, and his larynx underwent a greater change than is usual perhaps—for it is now a very large one—and he was unable to adjust the various parts of the vocal machinery to the new and varying conditions. Three things therefore may have combined to bring about this unfortunate state of affairs: an impaired physical condition, a sudden and unusual increase in the size of the larynx and a nervous anxiety brought on by the sportive jeers of his friends.

Soon after the onset of the trouble he had various minor operations performed in the throat and nose. Hypertrophied faucial tonsils were reduced and a spur was removed from the nasal septum, but no improvement in voice followed.

He was seen first by me on the 19th of September. A regular course of breathing exercises was instituted for the development of the respiratory muscles and all attempts at speech were for a time interdicted. There was a marked tremor of all the organs of speech. The pharynx was cocaineized and a careful laryngoscopic examination revealed nothing unusual except that the larynx was somewhat above the average size. The vocal cords overlapped posteriorly in the falsetto tone and the glottis presented the usual elliptical shape in the aphonic condition. It was observed that during phonation there was a strong contraction of the palato-pharyngei muscles drawing the larynx high up in the throat. To counteract this up-pulling of the larynx, the tip of the left index finger was placed on the dorsum of the tongue well back against the anterior surface of the epiglottis and firm downward pressure made, and at the same time with the right index finger in the groove on the upper border of the thyroid cartilage externally the larynx was held in a fixed position and the patient was told to say "ah," which he succeeded in doing in a low chest tone for the first time in his life. After several repetitions of the tone with the larynx held for him in this position, he was able to control it himself, and after two weeks' faithful practice he went home with a full rich chest-tone which he used in speech with remarkable facility, while it was with great difficulty that he could imitate his former mode of speech.

Society Proceedings

THE PHILADELPHIA COUNTY MEDICAL SOCIETY.

September 22, 1897.

DR. EDWARD MARTIN, of Philadelphia,
read a paper on

THE SURGICAL TREATMENT OF GOITER.

I beg to exhibit six patients on whom I have operated, and a seventh, who was apparently cured or at least relieved of all her general symptoms as a result of evacuation of an abscess that formed spontaneously.

Three of the cases occurred in sisters aged 33, 31 and 29 years, respectively. There was no other goiter in the family. The patients are of Scotch-Irish-Welsh extraction and came from a region in which goiter is practically unknown. They all noted from childhood a peculiar shape of the neck. In two a distinct lump developed at about the tenth year, in the third no growth was noticeable until the period of gestation. The goiter was parenchymatous in two of the sisters, cystic in the third.

The fourth case was a native of Austria, 33 years old, who came from a region in which goiter is common. No member of her family is similarly afflicted. She noticed her neck to be peculiarly shaped when a schoolgirl. A lump developed when she was carrying her first child.

The fifth case, without a goitrous history in the family, was in a woman, aged 33, who noted the development of a tumor in the neck when 21 years old. This grew with special rapidity during the period of gestation.

The sixth case was in a man, aged 30, of Irish parentage. There was no history of goiter in the family. He first noticed a lump in the neck when he was twenty years old. Shortly before operation he became involved in a fight and was seized by the neck. As a result the tumor swelled greatly and became extremely painful.

The seventh case, in which cure followed suppuration, occurred in a woman aged 33, with no goiter in the family history. The tumor was four years old. Without cause it swelled rapidly, became extremely painful and hot, and symptoms of septic absorption

developed. Incision evacuated a half pint of pus and broken down blood-clots.

With one exception, all these patients suffered from headache, more or less sleeplessness, recurring distressing attacks of cardiac palpitation and shortness of breath. In two, there was slight exophthalmos. In all but one, symptoms of neurasthenia were pronounced. A transverse curved incision, with its convexity downwards, was made in each case. In one, enucleation was attempted and was accompanied by violent and life-threatening hemorrhage. Previous ligation of the vessels would have made this operation a perfectly safe one. The patient, however, convalesced promptly. In two cases paroxysmal seizures occurred 24 hours after the operation. In the remainder the convalescence was uninterrupted. In all there was much oozing, necessitating a change of dressing within the first twelve hours. This took place from the cut surface of the thyroid, was venous and was due to the congestion incident to vomiting, following ether narcosis. In three of the cases the wound was closed without drainage; in the remainder the wound was drained in order to provide for this oozing. In all but two of the cases the percutaneous suture was used. The interval following the operation varied from eighteen months to two years. The patients are all well and the scar in every instance is insignificant; in two cases it is scarcely visible. In addition to the relief of the very great deformity, the nervous symptoms have entirely disappeared, with one exception.

The operation performed was, with the exception of enucleation in one case, practically that commended by Kocher. The transverse incision is perfect as it gives free access to the operative area. Apposition of the margins of the wound is more accurately effected by suturing, and after healing a much less conspicuous scar is left. This incision was carried over the most prominent part of the goiter, from about the mid-width near the sterno-cleido muscle, to a similar point on the opposite side of the neck. When the goiter is very large, the angular incision is to be preferred. This begins over the bulge of the sterno-mastoid muscle at the level of the thyroid cartilage and runs transversely in the direction of the wrinkles to the middle line of the neck, then downward

to the suprasternal notch or the middle of the manubrium. After division of the skin, the fascia uniting the sterno-hyoid and sterno-laryngeal muscles on each side is divided and these muscles either retracted or cut across. The sterno-mastoid muscles are then well retracted, and the fibrous capsule, investing the goiter, is cut through until the surface of the tumor is reached. This presents a typical brownish or bluish color, and often has ramifying over its surface enormous veins. By means of the fingers and gauze sponges, the fibrous capsule is separated from one lobe of the tumor, the veins being ligated as they are encountered. This lobe can be lifted upward and forward, exposing its posterior surface. By this means isolation of the thyroid artery and vein is possible, with the application of ligatures to these structures. The upper or the lower portion of the lobe is now turned out, accordingly as the one or the other is the more readily freed from its usually slight adhesions, and the vessels are secured by ligatures. A stout ligature is then passed beneath the isthmus, and the tumor is either removed completely, provided the other lobe of the thyroid be healthy, or is split, and from its substance cysts and nodules are enucleated. Traction upon the isthmus or tightening the ligature readily controls bleeding. Freeing the goiter from its capsule is greatly facilitated by dry gauze sponging, the upper cornua of the tumors being turned out first, and the superior laryngeal vessels ligated. The main operative difficulty is in overcoming adhesions posteriorly. In one case, these fixed the tumor to the deep cervical fascia covering the prevertebral muscles. Care was taken to thoroughly isolate the inferior thyroid arteries before ligating them, lest the recurrent laryngeal nerve should be injured. When the portion of the thyroid lying in relation to this nerve seemed healthy, it was cut across and left in place, thus effectually guarding against injury of the nerve. Care was taken to secure each bleeding-point before proceeding further with the stripping of the capsule. The amount of blood lost was extremely slight. In all cases a portion of gland was left, equal in amount to at least two-thirds of the bulk of the normal thyroid. In one instance, more than this was left, and this is the only case in which the nervous phenom-

ena were not promptly relieved. One case had been subjected to three months' treatment with electricity applied by an expert. This was without avail, but the scars resulting from the treatment are, even now, more conspicuous and disfiguring than that which shows the position of the transverse incision for removal.

As the object of this communication is to show the results of operation in the patients who have presented themselves, a discussion of the pathology of the disease is unnecessary.

Clinically, goiter can be classed under three general headings:

(1) Tumors, either smooth or large, solid or cystic, which occasion neither local nor general symptoms and are annoying only because of the deformity they cause.

(2) Tumors which by mechanical pressure on important structures cause pronounced local symptoms. Chief of these are pain, tenderness, distinct alteration of voice and cephalic congestion. The local symptoms caused by these tumors have no necessary relation to either the size or the consistency of the growth. In this group there is added to the deformity more or less disability and suffering of intermitting intensity and a distinct element of danger.

(3) Tumors which, either with or without local pressure symptoms, are associated with profound systemic disturbances, the chief of which are grave neurasthenia, tachycardia, tremor, insomnia and exophthalmos. In this group the symptoms are crippling and usually progressive, and the whole mentality is changed. The growth may be small or large. Contrary to the generally accepted opinion, it is not generally more vascular than the solid and cystic goiters of the first two groups, nor histologically can there be detected any difference in the processes of hyperplasia, infiltration and degeneration characteristic alike of the exophthalmic, the solid and the cystic goiters. Even symptomatically there can be drawn no sharp distinction, as it is common enough to observe an ordinary goiter in the course of its growth gradually become associated with symptoms of Graves' disease.

Of the three clinical groups of thyroid enlargement described, cases in all are proper subjects for surgical intervention, provided a careful trial of medical means, including

electricity, has proved unavailing. In the first group of cases, *i.e.*, those in which the tumor troubles only because it is unsightly, operation may be deferred when the growth is stationary or retrograding and when it is not a source of constant mental discomfort to the patient. When tumors of this first group are steadily increasing in size operation should be undertaken promptly. All tumors of the second class, *i.e.*, those giving rise to local or reflex pressure symptoms, should be subjected to operation. The indications are urgent when there is recurrent dyspnea. In tumors of the third class the beneficial effects of surgical intervention are so striking and the mortality following operation is so slight that on the failure of medical treatment there should be no hesitation in advising ligation or partial thyroidectomy.

A causeless, comparatively rapid, relentlessly progressive solid, nodular or smooth, rounded, painful tumor growing from the thyroid gland in a woman over 40 years old should always suggest the possibility of malignant degeneration. In women this degeneration is less common. It is difficult to formulate the prognosis of untreated goiter, as statistics bearing on this point are not available, but when the thyroid is once permanently enlarged there is a tendency towards steady growth and the patient with a small goiter, which is annoying only because of deformity, can count as a rule, on a slow progressive increase of this deformity and a more or less pronounced neurasthenic condition due to the growth and only to be cured by its removal. Exceptionally the goiter disappears or remains stationary. In a small percentage of cases increase in size occurs rapidly, causes more or less pronounced pressure-symptoms and is associated with an aggravated neurasthenia, with dyspnea and irregular heart, especially well marked. In a smaller percentage of cases the disturbance of the vaso-motor mechanism of the thyroid circulation becomes especially noticeable and a pulsating tumor is associated with the characteristic symptoms of exophthalmic goiter. In a still smaller percentage of cases the symptoms of cachexia thyreo priva develop. Exceptionally the enlarged thyroid undergoes malignant degeneration.

As for treatment it is clearly shown that by general bracing hygienic, climatic and

electric treatment, many cases of goiter, particularly those of the exophthalmic variety, may be greatly benefited. Sometimes they are cured. In the recent parenchymatous goiters of young people, iodine and the iodids have yielded good results, though the common inefficacy and possible danger of this medication is now generally conceded. Thyroid extract may be expected to cure a small percentage of cases. According to Bruns, however, complete recovery can only be looked for, as a rule, in young children. But few adults are cured, and even in older children the enlarged gland does not diminish to its normal size. Graves' disease is a distinct contra indication to this medication, as the symptoms of this affection are supposed to be due to a saturation of the system with the normal or perverted thyroid secretion caused by increased blood-supply and hyperplasia of the secreting cells.

Galvano-puncture and injection have both been employed in some cases. An anesthetic is not required, and excepting in cases complicated with dyspnea, confinement to bed or to the house is not necessary. In the treatment of parenchymatous goitre the electric needle has proved most satisfactory. The procedure is painful and is often followed by inflammatory swelling, and requires weeks or months for its completion. Injections of iodine or of iodoform-emulsion are probably about as safe as the cutting operation. The injection should be repeated every third or fifth day, and is especially indicated in the treatment of parenchymatous enlargements. Fibrous and cystic goiters are not amenable to this form of treatment. Brunet records 59 cures in 88 cases treated by injections of iodine. Five or ten drops of the tincture were injected at each treatment. A number of deaths, usually attributable to embolism, are reported as a result of the injection of iodine. Garré injected iodoform-emulsion in 140 cases without a fatality; about 12 injections were given in each case; 1 grain of iodoform in a mixture of ether and olive oil, being employed.

The mortality of operative treatment, by which is meant enucleation or partial resection of the enlarged thyroid, has fallen from over 40 per cent. to less than one-half per cent., in over 1,500 cases operated on by four surgeons. In over 200 cases collected

from medical literature by Dr. Francis Patterson and reported by over 30 surgeons, the mortality was about three per cent. Hence it is clear that the operation so little threatens life that its performance may be advised even though there is no more pressing indication for it than the relief of a distressing deformity. The hemorrhage is readily controlled. Dyspnea is commonly relieved at once by division of the deep cervical fascia and turning the goiter forward, though when the tracheal rings have suffered from pressure-absorption the larynx may readily be kinked or compressed and the introduction of a long flexible tracheotomy tube will be necessary. The anemia often complicating exophthalmic goiter may render the patient peculiarly susceptible to shock. The immediate sequence of the operation may be thyroid intoxication, which is usually transitory; hemorrhage, easily controlled by pressure, consecutive hemorrhage requiring opening of the wound and ligature; dyspnea, due to mechanical irritation of the larynx and trachea and in part probably to irritation of the recurrent laryngeal nerve, relieved by inhalations of oxygen; sepsis being provided against by most scrupulous attention to surgical cleanliness and, when the wound has been infected as by vomiting, by gauze drainage. The remote effect of the operation would be myxedema due to degeneration of the portion of the thyroid left, readily controlled by feeding with thyroid extract; and recurrence of the growth, which is noted in about 1 per cent. of the cases. The operative danger is so well under control, the percentage of radical cures is so high and the ultimate ill effects are so entirely avoidable that it is difficult to understand why partial thyroidectomy is not more popular in Philadelphia.

Dr. Patterson has found from a study of the reports of five hospitals in this city, namely, Jefferson, University, Pennsylvania, Presbyterian, and Episcopal, that in the last ten years (five years at the Jefferson) there were treated in these institutions, usually in the Out-patient Department, 182 cases of goiter, of which 5 were operated on, with 1 death. It is evident that a very small percentage of goitrous patients apply for hospital treatment because of the belief that the affection is beyond help, excepting at a grave

operative risk; nor is this belief confined to the laity.

The object of this paper and the exhibition of the patients, together with a summary of what has been done in this direction in other parts of the world, is to show that the operation is a safe one and that the results are as satisfactory as from any other formal procedure in surgery.

News Item

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Name _____ M.D.

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Current Literature

Gastric Ulcer in Infancy.—Gastric ulcer is exceedingly rare in early life, and the number of cases thus far recorded in the literature is a very small one. Four varieties are described by Holt: (1) ulcer in the newborn; (2) ulcer resulting from follicular gastritis; (3) tuberculous ulcer; (4) round, perforating ulcer. Of the etiology, or rather the pathology, not more is known than of the corresponding lesions in older persons. The *Boston Medical and Surgical Journal*, of August 19, 1897, contains the report of two interesting cases of gastric ulceration in infants, in one of which the diagnosis was confirmed by *post-mortem* examination, and in the other of which the symptoms appeared to be dependent upon disturbances of the nature of a maternal impression, though without a fatal issue. The first case is reported by Hibbard, and occurred in a girl, three

months old, who came under observation with diphtheria-bacilli in the throat. It was treated with antitoxin, but vomiting and diarrhea developed, and death resulted apparently from exhaustion. On *post-mortem* examination there was found, in addition to bronchitis and broncho-pneumonia, a circular area, five centimeters in diameter, partially outlined on either side by deep losses of substance, on the posterior surface of the stomach, extending down to the greater curvature, and nearer the pyloric than the cardiac orifice. The second case occurred in a new-born female child, whose mother, during the fifth month of pregnancy, witnessed the vomiting of a considerable amount of blood on the part of her sister. The child weighed eight and a half pounds at birth, and appeared, in all respects, perfectly normal. On the second day, she became uneasy, and, after a time, vomited one or two teaspoonfuls of bright-red blood. Several attacks of vomiting were repeated on the next day, the blood being now darker colored. For three or four weeks, the baby cried a good deal and slept little. It was nourished with some difficulty with artificial food and finally did well. It weighed six pounds when two weeks old, and thirteen pounds at the age of three months. There was no further digestive disturbance after the second month.

A. A. E.

Micrococcus Ghadiallii is the name given to a micro-organism discovered by Dr. Ghadially, assistant to Prof. Hankin in the bacteriologic laboratory at Agra, in India, and which is said to possess the power of destroying the bacillus of typhoid fever in water and milk and to a less extent in bouillon and also some power of destroying the bacillus coli in water. It has been suggested that the micrococcus might be used for freeing infected water-supplies from the typhoid bacillus. The organism appears to be non-pathogenic and also without therapeutic power.

A. A. E.

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Correspondence

EMPIRICAL PREVENTION OF TUBERCULOUS MENINGITIS IN CHILDREN.

To the Editor of Philadelphia Polyclinic:

DURING the last ten years, I have been following a plan of treatment which I believe has been eminently useful if it has not been scientific. Every physician in general practice meets with cases of sickness in children aged from two and a half to five or seven years, of such vague symptoms as fever, anorexia, and loss of appetite, which drag on from day to day, and which he cannot positively call malaria, or mild typhoid, which eventuate into meningitis, usually of the tuberculous variety and end fatally.

I believe the doctor who only orders an antipyretic in such cases does not do his whole duty. It is best to anticipate some grave lesion and use remedies accordingly. I always in such cases order, as recommended by the late J. Lewis Smith, in his "Diseases of Children," potassium iodid and bromid in one mixture to meet a threatened meningitis, and quinin and Fowler's solution in another prescription, leaving out the quinin if the stomach becomes irritable, to combat an underlying malaria; in addition, treating high fever by cold cloths to the head. The iodid does no harm in any of the conditions named; I believe (empirically) it has warded off tuberculous meningitis in many a case. I have seen a number of cases whose history was tubercular, recover after ten days to two weeks. One was that of a little boy of four years, with a history of coxalgia in an older sister, who had convulsions (general) for ten days, at intervals of thirty minutes to two hours. This boy recovered, but he received, in addition to inhalation of chloroform and the bromids and chloral at times, iodid and arsenic from the first. This case was seen by three medical men of larger experience than myself, both in hospital and general practice, and each gave a different opinion as to the cause and diagnosis. I firmly believe the cause of the trouble in this child was irritation of tuberculous material, which was prevented by the iodid and bromid from going on to an active inflammation.

J. B. TURNER, M.D.

Philadelphia, October 5, 1897.

THE PHILADELPHIA POLYCLINIC

Brief, practical, original articles, and news of general professional interest are solicited for publication in this journal. Contributions accepted will be paid for on publication, or, if desired, and so indicated on the manuscript, 50 reprints will be furnished in lieu of other compensation.

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PHILADELPHIA, OCTOBER 23, 1897

THE AMERICAN PUBLIC HEALTH ASSOCIATION.

THE ultimate goal of medicine is the eradication of disease, its complete prevention. No one can engage in the warfare with disease, which is carried on by the medical profession at all times and in all places, without having his attention drawn to the causes of morbid action, and coming to earnestly desire their removal. Hence it is that physicians take the most active interest; and play a leading part in all organizations and movements to improve sanitary conditions, and conserve the public health.

One of the most important movements in this direction, the most important organization for this purpose in the western hemisphere, is the American Public Health Association, which will hold its twenty-fifth annual meeting in Philadelphia, October 26, 27, 28 and 29. The medical profession of Philadelphia has shown its interest and appreciation of the occasion, both by the part that its individual members have taken in making the necessary arrangements for it, and by a substantial contribution to the entertainment of the Association made through a committee of the County Medical Society.

The meeting will undoubtedly offer an excellent opportunity to become acquainted with the latest advances, both in laboratory work bearing on the recognition of contagious disease, and in practical public sanitation. It is a fact that by far the most extensive applications of what knowledge has been gained by recent bacteriologic investigation as to diagnosis by cultures and serum, and treatment with antitoxins, have been made in connection with the laboratories of bacteriology established by the health authorities in some of our large cities. As the work of these health authorities extends it comes more and more frequently and closely in contact with the work of the physician; and it becomes more important for the physician to learn what he can of the work, purposes and tendencies of such health authorities. The physician cannot be expected to read extensively in a literature which is quite apart from that of practical medicine and surgery. The best thing he can do is to attend such a meeting as the one about to take place in Philadelphia, and by membership in the Association to keep in touch with the general tendency of practical sanitation.

The scope of the Association and the large number of points of interest that its proceedings offer to the wide-awake medical man, are well shown in the following list of subjects selected by the Executive Committee for consideration at the coming meeting:

- (1) The Pollution of Water Supplies. (2) The Disposal of Garbage and Refuse. (3) Animal Diseases and Animal Food. (4) The Nomenclature of Diseases and Forms of Statistics. (5) Car Sanitation. (6) Steamship and Steamboat Sanitation. (7) International Committee on the Prevention of the Spread of Yellow Fever. (8) On the Relation of Forestry to Public Health. (9) On the Causes and Prevention of Infectious Disease. (10) On Public Health Legislation. (11) On the Causes and Prevention of Infant

Mortality. (12) On Transportation of Diseased Tissues by Mail. (13) The Period During which Each Contagious Disease is Transmissible and the Length of Time for which each Patient is Dangerous to the Community. (14) Sanitation, with Special Reference to Drainage, Plumbing and Ventilation of Public and Private Buildings. (15) Methods of International Arrangement for Protection Against the Transmission of Infectious Diseases. (16) Disinfectants. (17) To Examine into the Existing Sanitary Municipal Organizations of the Countries Belonging to the Association, with a View to Report upon those most Successful in Practical Results.

Most of the above topics are of direct interest to the practicing physician. There will also be much to interest him in the exhibit which will be held in connection with the meeting, in the Horticultural Hall. It is certain that Philadelphia will during the coming week have within its borders large numbers of physicians, not only from all parts of the United States, but also from all parts of the Dominion of Canada and Mexico which are equally represented in this organization. To one and all we bid a hearty welcome.

E. J.

Editorial Note

Special Week in Ophthalmology.—Commencing November 15, 1897, the fifth special week in Ophthalmology at the Philadelphia Polyclinic will be devoted chiefly to operations. The fee for the full course, including all clinical work, is \$15, or for the special lectures, demonstrations, and conferences, without the regular clinics, the fee is \$5. The full roster will be published in our next issue. For further particulars address the secretary or the clerk at the Polyclinic Hospital.

In the Clinics

IN a case of *chronic glaucoma*, Dr. Veasey prescribed a solution of *eserin salicylate*, one-twelfth of a grain to the fluidounce, of which two drops were to be instilled into the conjunctival cul-de-sac three or four times a day, and in addition, for internal use, the one thirtieth of a grain of *strychnin sulfate* before each meal.

* *

DURING the past summer the *pulse and temperature* of many new patients coming into Dr. Cohen's medical clinic were taken with the object of discovering their variations in walking dispensary cases. It is interesting that of 132 recorded, 24 had a normal temperature (98°), the highest was 103.9. Only one, a male, had a pulse of 66, the highest being 140. Twenty-seven ranged from 100 to 140; forty-seven in the nineties, 28 in the eighties, the remainder in the seventies.

* *

THE large size and number of the lymph spaces in the mucous membrane lining the neck and body of the womb, and the richness of the lymphatics with which they communicate, render infection of such a membrane of serious import. The precaution, then, to *avoid such infection* cannot be too rigid.

Dr. Talley calls attention to this fact and advises that the vault of the vagina and cervix uteri be carefully washed with mercury bichlorid solution 1:4000, before instrumentation of the uterine cavity, and that the uterine sound and nozzle of the uterine syringe should be washed with the same solution before introduction. This has been the rule in the gynecologic dispensary for several years.



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THE PHILADELPHIA POLYCLINIC

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OCTOBER 30, 1897

TREATMENT OF BURNS.

BY MARIE B. WERNER, M.D.

Clinical Assistant in Surgery at the Philadelphia Polyclinic, etc.

THE surgical department under the direction of Dr. Thos. S. K. Morton, at the Philadelphia Polyclinic, is always replete with interesting cases, taxing the skillful surgeon often to the utmost. A case may be interesting to the student both before and after diagnosis and treatment, but the pinnacle of satisfaction and gratitude is reached only when the desired result has been obtained in the restoration and usefulness of those tissues which had been destroyed by local injury or disease.

The writer, having served as clinical assistant to Dr. Morton, has had good opportunities in studying the results of the moist antiseptic treatment for burns, varying in extent, location, and depth, from a superficial blister to those including muscles and tendinous structures.

The clinical records show some cases deserving the attention of the busy practitioner. The treatment is simple and appeals at once to the ordinary reasoning mind.

(1) Place the burned member or surface into a carbolized bath of from 2 per cent. to 5 per cent., depending on the age of the patient, and the extent of the injured surface. A threefold effect is gained by this, *i.e.*, antiseptis, aseptis, anesthesia.

(2) Remove all the acid solution by a second bath in the physiologic saline solution.

(3) Dust the entire surface with a powder containing acetanilid (1 part), compound zinc stearate (5 parts).

(4) Cover surface with narrow strips of Lister's green protective, or, if economy must be studied, thin gutta percha tissue can be used instead.

(5) Place wet sublimated gauze¹ ten to twenty thicknesses over and around the surface, followed by ordinary bandaging.

The subsequent dressings differ only in one or two points from the first, as stated above. The carbolized bath is substituted by one of either the saline solution, or a weak solution of mercury bichlorid, followed by a spray of hydrogen diroxid which will aid in removing all the pus and loose dead tissues—after this, the surface is dusted with the powder, and protective strips, gauze and bandages are applied. These dressings are changed as often as needed, the extent and depth of the burn making its own rule, usually known by the amount of drainage and odor.

The advantages of this treatment over and above that of lotions, oils or salves, are: freedom from any accumulation of fats with dead epithelium, encouragement of a healthy epithelial granulation under a clean moist dressing, the Lister protective serving in the double capacity of preserving the new epithelial cells and as a temporary integument.

¹ Corrosive sublimate solution used, 1-4000.

Finally, and not least in importance, there being little, indeed, almost an entire absence of fibrous tissue, there is less danger of those unsightly deformities often due to the con-

tracting cicatrix, which is also so often accountable for the sluggish circulation and nerve pains.

THE NATURE OF GLAUCOMA: AN EXPLANATION OF THE CURATIVE ACTION OF IRIDECTOMY.

BY DR. CH. ABADIE, Paris, France.

Translated by H. A. ROTHROCK, M.D., West Chester, Pa.

(Concluded from page 430, Vol. vi, No. 43.)

CHRONIC glaucoma presents itself under an aspect somewhat different. Here there is no intermittence in the phenomena. The intra-ocular tension increases slowly and progressively, bringing with it the glaucomatous atrophy of the papilla, without the least inflammatory symptom. In this form of glaucoma neither iridectomy nor sclerotomy gives, ordinarily, durable results. Must we then conclude that the nature of the disease is different? No, we have again the proof in the action of atropin and eserine, which is the same as in the acute form with intermittent crises. The dilatation of the vessels of the eye is again in play, for the instillations of atropin are always harmful. The vaso-constrictors, eserine and pilocarpin, on the contrary, always ameliorate. They are, to speak truly, the sole remedies for chronic simple glaucoma. These myotics have a curative action only on the condition that they are instilled regularly and systematically every day. Immediately that one ceases their use the intra-ocular tension increases anew and the disease again takes its old course. Why? Because at the end of twenty-four hours the vaso-constrictive action of the eserine has passed off and in order to maintain this vaso-constriction a new instillation is necessary. One would not know how to produce a more convincing proof.

In chronic simple glaucoma the dilatation of the vessels of the eye is permanent. If it were a question, as some authors have held,

of a disorganization of the envelopes of the eye, or even of the optic nerve, would the action of the eserine, which permits us so to speak, to modify the disease at our will, be comprehensible?

But, one may say, why does not the iridectomy act as in the acute and intermittent forms? The explanation may not be very easy to give; nevertheless I shall express my opinion. In the acute and intermittent forms, it would be above all the vessels of the anterior segment of the eye that would be affected. The vascular dilatations would be felt in the ciliary processes and the iris, and the nervous fibers which govern the dilatation and constriction of this vascular department would be those which enter into the formation of the plexus in the iris. Hence, section of this plexus causes cessation of the vascular dilatation. This hypothesis is moreover more acceptable since the vaso-dilator nerves, as we have already said, have the same origin and the same course as those which go to dilate the pupil.

In chronic simple glaucoma it is not the vascular system of this part of the eye which would present these modifications. The dilatation of the vessels would take place only in the choroidal tissue, from which the phenomena of hypersecretion which accompany this vaso-dilatation would be much less active, and the tension would be raised much more slowly. But on the other hand, the vaso-dilator nervous fibers of this region not

being the same, and not ending in the iris plexus, section of this plexus would no longer have a curative effect.

If with iridectomy we are well armed against acute and subacute glaucoma, and crises in all their forms, we are less armed against chronic simple glaucoma. In many cases neither iridectomy nor sclerotomy give satisfying results, and it is the regular and systematic employment of the myotics which, without leading to a cure, maintains the eye in *statu quo* indefinitely.

We must indeed admit that we encounter still certain forms of chronic simple glaucoma, which, despite iridectomy, sclerotomy, and the regular use of the myotics, continue their course; extremely slowly, it is true, but yet progressively, leading the patient on towards blindness. In these cases, which defy all our present therapeutic resources, there is room to search for a cure by other means.

One should be able, it seems to us, to act on the vaso-dilators of the eye by cutting the trunk of the cervical sympathetic, which encloses them, as has already been done with success in exophthalmic goiter. I believe that I can predict that section of the cervical sympathetic will soon play a large rôle in ophthalmology.

Excision of the ophthalmic ganglion would probably give as good results. But this operation would seem scarcely practicable on account of the smallness of this ganglion, hidden in the fat of the orbit and also on account of the very great difficulty in avoiding severing the ciliary arteries and the central artery of the retina. Nevertheless it might supersede enucleation in cases of painful glaucoma with loss of vision.

There would be also another method of avoiding the difficulty in chronic simple glaucoma. This would be to strive to obtain a filtration cicatrix. It is true by so doing one does not attack the true nature of the disease, but its effects. One does not restrain

the hypersecretion of the liquids; but in favoring their escape one brings back the intra-ocular tension to normal. Simple sclerotomy has not given in this respect the results for which we hoped. Ordinarily the edges of the wound reunite regularly, without undergoing cystoid degeneration, and the filtration of the liquids in excess takes place scarcely better after than before.

To render the cicatrix cystoid and permeable, the section of the sclerotic being achieved, one could allow a thread of catgut or a flap of conjunctiva to hang between the edges of the wound for several days, as has already been suggested. It remains to the surgeons to use their ingenuity in modifying the simple sclerotomy in such a fashion that it may be followed by permanent cystoid degeneration playing the rôle of a safety valve, and not allowing the intra-ocular tension to be raised above a certain limit.

Society Proceedings

THE PHILADELPHIA COUNTY MEDICAL SOCIETY.

Stated Meeting, September 22, 1897.

THE President, DR. JAMES TYSON, in the Chair.

DR. EDWARD MARTIN read a paper on

THE OPERATIVE TREATMENT OF GOITER,

(See page 432, Vol. vi, No. 43.)

and exhibited six patients.

DISCUSSION.

DR. JOHN B. ROBERTS's success with the operation in a small number of cases has been similar to that of Dr. Martin. He referred to a woman seen recently on whom he operated four or five years ago. There is little scar and in all respects the result is satisfactory. Dr. Roberts has not operated on a large number of cases of goiter, partly because many did not seem to need operation, while in others medical means was sufficient to reduce the size of the tumor. It is his custom to tell patients, if the tumor does not become smaller in a comparatively short time under medicinal treatment, that operation is proper and is not a very serious

matter. It is, however, like all operations, attended with a certain amount of risk, and, as a rule, it is preferable to try the milder means before adopting more heroic measures.

Referring to the case of acute thyroiditis in a diseased thyroid gland, Dr. Roberts stated that he had seen a similar condition once or twice. Last spring a woman with quite a goiter presented herself with high temperature and very much the symptoms related in the case of the young girl reported by Dr. Martin. The treatment was conducted on general principles, and there was no suppuration. The tumor diminished, the temperature fell, as the inflammation subsided, and, as there was still quite a large cystic growth, it was subsequently opened with a bistoury and a great amount of bloody fluid turned out.

In a similar case seen a few weeks ago a woman came to the hospital with active symptoms of acute thyroiditis, which it was thought would require operation because of dyspnea; but in a few days the swelling rapidly subsided. Dr. Roberts has seen suppurating thyroiditis in a man. The patient did badly and died, perhaps because incision was not made early enough.

With treatment with thyroid extract possibly it may be possible to diminish the growth. Old fibroid bronchoceles can probably not have anything done for them except through operative measures.

Dr. Roberts said finally that he would not operate perhaps in quite as many cases as Dr. Martin, perhaps not quite so soon, but the results are good, the scar can be made very insignificant, the operation is not a very serious one, and the hemorrhage and other complications can usually be avoided in the hands of competent men. Much more hope can now be held out to goitrous patients than formerly. The number of cases in the United States is not so large, and thyroid extract given comparatively early in the disease will probably do much good.

DR. R. G. CURTIN said his knowledge of enlargements of the thyroid gland has been almost entirely confined to exophthalmic goiter, in which disease the enlargement of the gland rarely causes enough pressure upon the trachea or esophagus to produce even slight dyspnea or dysphagia. It can be conceived that such a deformity could be the

cause of mental depression which might aggravate the existing nervous symptoms. Dr. Curtin has seen but one case in which suppuration of the gland occurred, and this was a broken-down woman in whom ergotin had been injected into the substance of the gland. After several injections the whole gland melted down into an abscess and was discharged without incision. The abscess occasioned very little pain or constitutional disturbance. There was no enlargement of the neck following the abscess. The other symptoms continued the same. In Dr. Curtin's opinion there is not much danger from inflammation in removing the thyroid gland.

In the acute form of exophthalmic goiter the gland is very soft and vascular, so that the dangers of any operation would be thus increased. It seems that in the acute stage the removal would be more serious than in the chronic form.

The enlargement of the thyroid gland attending Graves's disease is only a symptom of a disease the seat of which is located in the sympathetic nervous system, so that the removal of the gland would not cure the malady.

In proof of the influence exerted by the enlarged thyroid, Dr. Curtin related that he has seen and heard of cases in which the thyroid did not enlarge at all; in other cases the disease continued for years before any abnormal size of the thyroid occurred. Again, the palpitation, which is generally the second of the triad of symptoms usually found in this disease, may start years previous to any enlargement of the thyroid. The sensitive condition of the nervous system would be a drawback to the operation, for the excitement and shock preceding and following might be a great disadvantage. Young women, after the acute stages, distressed by the deformity of the neck, might be benefited by the removal of the gland, through the resulting quietude of the mind and nervous system.

In a paper read before the Pan-American Medical Congress last November, Dr. Curtin showed that many of the old cystic goiters were caused originally by hereditary Graves's disease, modified by living in a limestone district, or by other influences. Such cases might be operated on if necessary, but they are usually of chronic form;

consequently the patients are advanced in years and would not desire the operation.

DR. A. A. ESHNER stated that his experience had been considerably larger with cases of exophthalmic goiter than with cases of goiter of other varieties. He did not agree with the view that operation is not indicated in cases of the former. On the contrary, he thought that the indications for surgical intervention would be pretty much the same in both sets of cases, viz.: Excessive sizes, marked deformity and pressure symptoms. He would go even a step further in cases of exophthalmic goiter and coincide in the removal of the gland for its direct curative effect. The number of cases recorded in the literature in which partial removal of the enlarged thyroid gland in the manner pursued by Dr. Martin, has been followed by amelioration or disappearance of the remaining symptoms. Exophthalmos, tachycardia, tumor, etc., is now so large as to leave no room for doubt as to the relation between the operation and the result. Cases of exophthalmic goiter are exceedingly rare, if they occur at all, in full-blooded blacks. Not having seen a large number of cases, Dr. Eshner could not speak with positiveness as to the frequency with which simple goiter occurs in colored persons. He referred to the case of a young colored man exhibiting an enlarged thyroid gland of some six months' standing, in which diminution in the size of the gland had apparently taken place in the sequence of thyroid medication, one grain of a dried extract being administered thrice daily. In conclusion, Dr. Eshner maintained that thyroidectomy should not be undertaken until medicinal measures had been exhausted, except in urgent cases, as, for instance, when the pressure of the enlarged gland threatens asphyxia, when operative aid must be given at once. Such measures failing and the symptoms persisting, or the patient demanding relief, partial ablation of the gland is indicated.

DR. G. G. DAVIS commended the position taken by Dr. Martin. A certain feeling, so to speak, must be present in the community to support advanced measures, and the report and the exhibition of such cases as those made will tend to strengthen a surgeon in advising more radical measures than has heretofore been the case. The mortality as mentioned as being from four operators can

hardly be taken as indicative of the result that the operation would give were it to be adopted by surgeons generally. Goiter is much less frequent in the United States than it is abroad, and the experience that surgeons gain here is much less than that of Continental surgeons, and there is no doubt that experience has considerable to do with the mortality. The operation is in a dangerous region, the neck, and the wound made is an extremely large one; therefore one has not only the operative procedure to perfect, but likewise the after-treatment of the wound to carry it successfully through. The dangers are illustrated in the cases reported. In one of these there was troublesome hemorrhage; in two there was difficulty afterwards with the breathing, in other words in three out of seven there was some untoward symptom. There is no doubt that in a considerable number of these cases the operation is simple and the gland can be readily turned out. In others the operation would be dangerous and Dr. Davis has seen an operation for the control of secondary hemorrhage, following the removal of half the gland, in which the patient died upon the table. This took place apparently from venous bleeding, which occurred deep in the recesses of the wound in the neighborhood of the inferior thyroid veins. The veins seem to come directly from the fascia, that is to say, to be almost indistinguishable from the fascia, and the surgeon could not promptly and efficiently enough control the hemorrhage with hemostatic forceps or by pressure, and this operator is recognized as a very excellent surgeon, so that the accident was apparently not due to lack of technical ability.

DR. JAMES TYSON said that his experience in the medical treatment of goiter has not been very satisfactory. The small enlargements of the thyroid gland which are slightly conspicuous often yield to medical measures, but large, well-developed goiters do not respond readily to such treatment. Dr. Tyson was impressed by Dr. Martin's paper as to the possibilities of the operative treatment of these cases and he was much more favorably disposed towards operation than before he heard it.

DR. EDWARD MARTIN said that the remark in regard to thyroid feeding possibly limiting the number of cases that come to the surgeon

is an apt one and the indications for this treatment are fairly well formulated now. As a result of observation in from 80 to 100 cases it has been shown that recent parenchymatous goiters in very young children, can be as a rule cured. In children of older growth they can often be cured. In adults they cannot be cured. In cases of cystic or fibrous goiters the treatment is utterly vain. In cases of exophthalmic goiter it is distinctly toxic. In the class of young people with recent parenchymatous nodules certainly thyroid treatment promises well.

In regard to interference with exophthalmic goiter, it seems to be very difficult to distinguish between exophthalmic goiter and simple goiter. Of course, a typical example of each is distinct enough, but the pathologic and symptomatologic merging is so gradual that it is difficult to draw any sharp line of separation. Exophthalmic goiter should be subjected to the same treatment as the simple variety.

The operation, when indicated, should be performed before these changes take place, which are to a certain extent irreparable.

It is a question whether the exophthalmos is a cause or a result of a nervous lesion. In the cases of goiter reported the tumor, even in its cystic form, has been almost always associated with a pronounced degree of neurasthenia and hurried heart-action. Except in one case these symptoms have all cleared up after the operation, and the experience of surgeons who have had infinitely wider opportunities for observation is in corroboration of the fact that no matter what the nature of the goiter, by its partial removal the symptoms are relieved or cured. There are now on record over 200 cases of partial incision of the enlarged gland of exophthalmic goiter, and the results demonstrate, as well as anything can, that improvement follows in proportion to the wisdom in selection of the amount of the diseased gland to take away. Of course, all discussions as to the beliefs in this matter are founded only on theory, but the theory that seems most plausible in regard to the symptoms that accompany exophthalmic goiter, is to the effect that these are due to hyper-thyroidization.

Still the question is by no means clear, and no one has yet absolute proof to adduce

against exophthalmic goiter being the result of a nervous lesion. Certainly to a surgeon it seems the other way.

As to the advisability of operating on exophthalmic goiter when vascularity is a pronounced feature, the tumor being small, surgeons of widest experience will advise ligations of the arteries, three, or even all of them, in preference to excision, as it is considered somewhat the safer operation; at any rate the results are extremely good.

The remark in regard to a mortality greater than that of one-half per cent., from four operators, is no doubt justifiable. The fact seems marvelous. The malignant cases are, however, thrown out. In other words, the figures are just a little juggled with, and it cannot yet be said to what degree, but the mortality of the cases reported by some thirty surgeons is about $3\frac{1}{2}$ per cent., and that is probably about the mortality to be expected in the United States. Continental surgeons are scarcely any more careful than American surgeons, and they are no more clean. The operation requires no special skill beyond that which may be expected of any surgeon.

The object of the paper presented was to encourage the feeling that in advising a patient to have a goiter operated on, the physician is not taking any great risk, certainly not greater than that involved in the removal of a chronically inflamed appendix, or in relieving chronic ovarian trouble.

The patients that come under the surgeon's notice now are those people who have passed the limit, who come for operation, and often in very ill condition. It would be well to get patients to come before they reach that limit, and the result might be the relief of the suffering, with a mortality somewhat better than that given.

THE ADMINISTRATION OF CREOSOTE.

THE *Journal des Praticiens* recommends the following formula for the administration of creosote, the prescription being put up in cachets:

Creosote, ... of each 15 grains.
Benzoin $1\frac{1}{2}$ drams.
Powdered charcoal

Triturate the creosote and the benzoin for a moment together and add by degrees the charcoal. This mass is then to be divided into five or ten cachets, each one of which will contain a proper dose. It is claimed that this preparation is very well borne by the stomach.—*The American Therapist*, August, 1897.

THE PHILADELPHIA POLYCLINIC

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PHILADELPHIA, OCTOBER 30, 1897

IRREGULAR CASES OF TYPHOID FEVER.

As one's experience enlarges, the number of cases presenting marked departures from the ordinary type of enteric fever, yet to which no other diagnosis can be applied, is constantly increasing. In some of these cases the temperature record is decidedly irregular, much resembling influenza, sometimes approaching toward the remittent or intermittent type. In other instances the rose spots, though carefully searched for, are not detected at any time during the progress of the case. The nervous symptoms may be wanting, or may be so pronounced as to lead to the suspicion of meningitis or other special affection of the nervous system. So, too, the pulmonary symptoms may suggest pneumonia or often acute tuberculosis. The intestinal symptoms often are suggestive of appendicitis, and we indeed believe that not rarely appendicitis is a complication of enteric fever. Ehrlich's diazo reaction of the urine is not always present in enteric fever, and may be present in other diseases, including those concerning which the greatest difficulty of differentiation in diagnosis is usually experienced. It was hoped, that Widal's reaction—the immobility and agglutination of typhoid bacilli, when brought into contact with the

blood serum of patients—would prove an entirely trustworthy means of discrimination; but even this fails in a proportion of cases as yet undetermined. In our own recent experience, the reaction was negative in two cases which, from the clinical standpoint, seemed to be enteric fever, and was positive in a case of articular rheumatism, in which, apparently, there was no reason to suspect enteric fever. After all, then, one is compelled to depend upon the expert judgment born of extensive clinical experience, assisted, of course, by every means of exact research now or hereafter to be rendered available, in determining whether or not the puzzling cases which he meets are to be diagnosticated and treated as enteric fever.

The progress of science may enable us to sift out from among those cases which we now group under this designation, three or four varieties, just as our predecessors separated typhus and typhoid. For the present, however, it must be borne in mind that departures from type are not uncommon among cases clinically attended with febrile and nervous symptoms, and from post-mortem examination (and analogy in cases which do not perish), having, as a part of their pathological anatomy, inflammation and ulceration of Peyer's patches. The clinical variety of these cases seems to lend confirmation to the views expressed by many clinicians, and recently reinforced by Vaughan from the chemico-biologic standpoint that the organisms giving rise to the toxins responsible for the clinical symptoms of enteric fever may be numerous; and that Eberth's bacillus is not to be looked upon as a specific cause of a specific affection. This conclusion would not lessen the care to be taken to prevent the discharges of enteric fever patients from becoming sources of infection. For whether the poison be single or a multiplicity, whether it be microbic or chemic, there can be no question that the dis-

case, or group of diseases, is spread almost exclusively through water, milk, and food, contaminated by the excretions of patients. S.S.C.

Editorial Note

Paquin and his former Partner at Odds.—It will be remembered that some interesting disclosures, concerning the semi-reputable quack and his methods, grew out of the suits between the Columbia Chemical Company and Dr. William A. Hammond over "Animal Extracts;" while equally interesting testimony was given in the suits between Dr. Cyrus A. Edson and his former business partners in the manufacture of an alleged remedy, the name of which escapes us. Dr. Hammond did not, so far as we can recall, suffer expulsion from any medical society with which he had been connected, but Dr. Edson was compelled, it is said, to resign from the New York County Medical Society.

The suits now waging in Missouri courts, between Dr. Paul Paquin, of long-suffering St. Louis, and his former backer, Mr. John T. Milliken, promise to be quite sensational in their testimony concerning the business and professional methods used to boom the so-called anti-tubercle serum. Until all the evidence is in, judgment must be withheld; but the allegations of Milliken, as printed in the *St. Louis Republic* of October 10th, would utterly destroy Dr. Paquin's scientific and professional standing, if proved to be correct. We trust that they will not be proved; for it is not encouraging to note the spread of quackish methods among the members of the profession; and especially deplorable are attempts like those of Amick and others to make money out of the credulity and helplessness of consumptives. The scientific status of serum-therapy for tuberculosis, is, fortunately, not involved in the Paquin-Milliken controversy, that subject being in the hands of competent and trustworthy investigators.

S. S. C.

In the Clinics

A papulo-squamous itching syphiloderm, seen recently in the skin department, considerably puzzled the physicians taking the dermatologic course. In discussing the case, Drs. Cantrell and Schamberg both had occasion to remark, that one must not interpret too absolutely the text-book statement, that "syphilitic skin manifestations do not itch." In the great majority of cases, the statement is true. Exceptions, however, occasionally present themselves. In the case under consideration, the itching was severe.

* *

INFLUENZA masquerades under so many guises that unless one bears this fact in mind it is apt to be overlooked by a superficial observer.

Several cases came into Dr. Cohen's clinic recently, in which a provisional diagnosis of influenza was made, although other conditions seemed more prominent at first. One patient, a motorman, complains of constant, distressing pain in the back of his head; it shoots down the ears, extending into the posterior and lateral cervical muscles. For five days and nights he had not slept, so agonizing was the pain. There were gastric symptoms—anorexia, some vomiting, no diarrhea. The tongue was clean, the pulse weak, rate 100; the temperature 100. Influenza was diagnosed, but typhoid fever was thought of. The blood, however, did not respond to the Widal test. Nothing to account for the cerebral symptoms was found in the eyes.

* *

For some time past, Dr. Rugh has used *guaiacol benzoate* in cases of *tuberculous ostitis with suppuration*. He has used creosote, guaiacol and guaiacol carbonate in similar cases, but believes the benzoyl guaiacol gives more decided results than the others. The good effects are due to the improved nutrition

following the use of the drug, which is given in five-grain doses three times a day to a child 3 to 5 years old.

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ABSCCESS of the vulvo-vaginal gland is a condition that not infrequently is presented to the general practitioner for treatment. Simple incision, or incision and packing with iodoform gauze, is not sufficient for a reliable cure. The patient should be impressed with the fact that the use of an anesthetic is imperative for her complete cure. The suppurating gland should, if small, be included between two oval incisions and excised. The wound is then closed by two or three sutures and primary union secured. If the abscess is large, it should be opened freely and the cavity scraped with a sharp curet till all the gland structure has been removed.

Dr. Talley called attention to this fact and emphasized it by exhibiting a patient whose abscess had been incised three months before. A shallow suppurating fistula remained, which so annoyed the patient by its profuse discharge as to interfere with her work. The fistula refused to heal after two months' regular treatment with irrigation, cauterization and gauze packing. It was then freely incised, under ether anesthesia, and thoroughly curetted.

Current Literature

REPORT ON NEUROLOGY.

BY A. FERREE WITMER, M.D.

Hysterical Neuroses of the Skin.—(*American Journal of Medical Sciences*, July, 1897). In this paper Dr. Van Harlingen states that erythema, dermatitis, urticaria, hyperidrosis, edema, urticaria bullosum, pemphigus, herpes zoster, eczema, gangrene, pigmentation, vitiligo, lichen, chromidrosis, ecchymosis and hemitidrosis are found coincident with hysteria. Of these affections of the skin, erythema is common, but in many cases tends to change its character into that of a dermatitis, an urticaria, a purpura or a gangrene. Not infrequently a violent erup-

tion, such as anger, or a nerve shock induced by an accident, may bring on an attack of urticaria. Dermographism is closely akin to urticaria, but the author warns us not to consider dermographism pathognomonic of hysteria.

Hyperemia of the skin has been longest known and may be of a general or partial character. When partial it is frequently superimposed upon other hysteric phenomena. Hemianesthesia is usually limited to the hyperemic side, but may show itself at times upon the healthy side. Hysteric edema is an interesting condition. It must be remembered that this is always hard to the touch, contains no serum, and must be differentiated from giant urticaria. The temperature may be normal in blue edema, but is usually diminished; in red edema it may be increased. In hysteric pemphigus the lesions may be filled with serum and each outbreak is coincident with an hysteric attack. Herpes zoster, the author is inclined to believe, *never* occurs in hysteric patients, although a case of Ferré is cited in which a hysteric patient had a marked attack of herpes zoster. It is interesting to note that in the twelve cases of hysteric eczema reported, the lesions were in the hand in each case, and that the lesions were usually symmetrical. Gangrene is not frequently found in hysteric patients, but any of the other lesions of the skin may develop into it. The lesion in this case may vary from the size of a pin to that of the palm of the hand. Deeply pigmented areas over the forehead, lips and face are not infrequently coincident with hyperesthesia of the parts. The lower eyelids may also become congested and painful under the influence of some menstrual disturbance, normal emotion, or intense heat.

Bloody sweat in hysteric subjects has been noted for many years, but a fact that the author wishes to emphasize is that the exit of blood takes place, in by far the greater majority of cases, from an unhealthy skin. In conclusion the author states that it is his opinion that the skin lesions accompanying other affections of the nervous system are similar in nature to those occurring in hysteric subjects.

Simple Myositis as an Occupation Disorder.—(*International Medical Magazine*, July, 1897). In view of the prevalence of so-

called occupation neuroses, observations in this class of disorders are timely.

Dr. Moyer, in this paper, concludes that the overworked muscles, or at least the peripheral endings of the motor nerves in the ultimate muscular fibers are mainly involved. In support of this theory he offers the following observations made in two cases:

- (1) Electrical examination is normal.
- (2) Muscle involvement is identical with the overtaxed muscles.
- (3) Disinclination to work is due to pain.
- (4) Exacerbation of the condition occurs when forced work is attempted.
- (5) No association of rheumatic or other taint has been found.
- (6) Sensation in the involved part is perfect.

A Statistical Study in Epilepsy.—(*New York Medical Record*, July 31, 1897.) In this paper Dr. L. Pierce Clark, of the Craig Colony, records the time of the occurrence of the epileptic seizure in 9,545 cases. The greatest number of attacks occurred at 4 A.M.—537, or one eighteenth of the total being recorded at this time. The smallest number, 224, or one-fortysecond of the total, was recorded at 7 P.M.

These results are closely in accord with those reported by Sinkler and Pearce in the *Pennsylvania Medical Journal* for September, 1897, and by the reviewer in a paper read before the Philadelphia County Medical Society last April.

Selection

MUST DOCTORS RESPOND TO CALLS?

THE refusal of a prominent Chicago physician to respond to a night call has attracted considerable attention from the secular press. We are glad of it. We hope it will continue until the relations of the medical profession to the community are fully comprehended. When the people finally understand that the doctor educates himself, pays for the privilege of attending clinics at the public hospital, supports himself and receives absolutely no privileges or emoluments of any kind from the public, except that of paying license fees and wearing a tin tag like any huckster, men may inquire why we are expected to owe any service to the public.

True, there is the moral obligation entailed by our education and the position we hold in the community. But the moral obligation concerns ourselves alone, and is not one on which the public can base any demand upon us. And the highest moral obligation upon me is to support myself and family. Consequently, my first duty is to secure an adequate re-

muneration for my services from those who are able to pay for them.

Many views were expressed by different physicians on this question, and some require comment.

When a doctor attends everyone who calls on him, with the expectation of realizing some 60 per cent. of his fees, he must not call the other 40 per cent. charity. It is a matter of business. He collects it if he is able; and he cannot call charity his uncollectible accounts. If he knows he will not be able to collect a bill and still gives his services to that party, it is really charity; but the doubtful cases must be classed as speculation.

Moreover, the man who says he answers every call, irrespective of pay, must not take credit to himself for his goodness. He is only able to do this because he has inherited or married money. If not, he defrauds his creditors. If so, he defrauds two other classes; his wealthy patients, whom he compels to pay for his attendance upon others; and his poorer professional brethren, whom he deprives of possible employment. Indiscriminate giving of medical services degrades the profession to the rank of an eleemosynary institution, and pauperizes the doctor and patient alike.

But it has one saving grace—it enables the patient to pay more money to quacks.—*The Atkaloidal Clinic*, October, 1897.

New Publications

APART from the momentary interest in the mayorality campaign of the Greater New York, the character sketch of Henry George by Arthur McEwen in the *American Monthly Review of Reviews* for November will attract general attention. Whatever may be thought of the single-tax doctrine in economics, the politicians have found that Mr. George is a personal force to be reckoned with, and his personality has a fascination for many who are far from sharing his beliefs.

BOOKS RECEIVED.

ABOUT CHILDREN: Six Lectures Given to the Nurses in the Training School of the Cleveland General Hospital in February, 1896. By Samuel W. Keeley, M.D. 8vo, pp. 179. Cleveland: The Medical Gazette Publishing Co. 1897.

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THE PHILADELPHIA POLYCLINIC

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A CASE OF URETHRITIS AND SYPHILIS, ILLUSTRATING SOME CLINICAL ASPECTS OF THE INITIAL LESION.

BY JOHN LINDSAY, M.D.,

Instructor in Genito-Urinary Surgery, Philadelphia Polyclinic, and First Assistant Demonstrator of Anatomy at Jefferson Medical College.

GONORRHEA, chancroid and syphilis are the three diseases understood, when one speaks of venereal affections. Now the male who exposes himself at any and every opportunity, and there are many such, by having coition with all sorts and conditions of women, may appear before the clinician with all three present on his person at the same time. Although this is unusual, it should be borne in mind by the practising physician, and consequent care be observed, both as regards diagnosis and prognosis.

CASE.—S. M., a man aged 36, consulted me, giving the following history: On September 3, 1896, he had connection with a "woman of the town," and five days after this exposure he noticed there was a slight discharge from the urethra. The discharge became profuse and purulent, there was marked ardor urinæ, increased frequency of micturition, and what he called painful erections. In short, here was a typical urethritis, so far as period of incubation and clinical symptoms were concerned. For the urethritis he had treatment by a physician, locally by injections and internally by capsules, and at the end of five weeks, considering himself well, he discontinued further treatment. This man denied having had urethritis for several years, so that his urethritis was not due to the lighting up of some chronic lesion in his urethra. Outside of other considerations, the period of incubation—five days—would have prevented the clinician's considering or thinking of a constitutional disease like syphilis.

S. M., who denied having been further exposed, on or about November 12th, noticed a slight hardness of the lips of the meatus, which hardness became more marked until finally the entire glans penis was involved. On November 25th, he first consulted the writer, complaining of severe "eating" pain in the glans penis and slowness and difficulty in voiding urine. Examination showed induration of the glans, especially well marked around coronæ glandis, and ulceration of the lips of the meatus. The dilatibility of the first portion of urethra, from the external meatus, was so interfered with as to readily explain why there was difficulty in passing urine. At this time there were no evidences of constitutional involvement, no mucous patches or syphilitic eruptions. A diagnosis of initial lesion was made, iodoform being prescribed as a dusting powder and the patient ordered to report in two days. No other treatment was instituted as I wished to keep the man under observation, especially until secondary symptoms manifested themselves. The patient did not report until a month later, having been away from the city. During this time he had the same kind of pains in the glans off and on, mentioned above. Examination now presented to view a papular syphilide of the trunk, and two or three mucous patches in mouth, thus confirming positively the diagnosis. The secondaries had been present a few days. The ulceration of the lips of the meatus had become covered over, but the induration was very much as at the first visit.

The treatment now instituted was the presenting of mercury to the patient; but when

given by the stomach in any form there was such marked diarrhea that it had to be discontinued. Mercury was next tried by inunction, but seemed to have no therapeutic effects, and as the patient was becoming depressed, very nervous and at this time there developed suddenly an anginose condition of pharynx, I recognized the case as belonging to the group in which potassium iodid is a necessary forerunner of the mercurial, inasmuch as by it the lymphatic system is swept out and consequently put in a condition to take up the mercurial presented. Thirty grains of potassium iodid were given three times a day, and this was maintained for four weeks. Under this treatment the patient improved wonderfully, his nervous distress disappearing, the induration of the glans decreasing, and no further anginose symptoms presenting. Twice when the iodid was stopped anginose symptoms reappeared, only to disappear again on exhibiting the iodid. The patient afterward took mercurous iodid, without manifesting any intolerance.

I have reported this case, in its earlier history, not because of any great rarity in its mode of development, but chiefly to draw attention to some of its clinical features.

The length of the primary period of incubation—about forty-five days—although by

no means near the limits allowed by the textbooks, is yet striking clinically, seeing the average is so constantly twenty one days. Again, the marked and cartilaginous character of the induration is not now a common accompaniment of the initial lesion in my experience, though it must have been a frequent occurrence and fairly typical in past times to judge from our books on these affections. Again, the necessary preliminary use of potassium iodid, not to cure the disease syphilis, but to prepare the patient for his mercury, is a deviation from the usual routine practice, useful to remember.

The urethritis, as a prelude, is interesting to the medical man, if not to the patient. I believe the history given by the patient was correct, as I carefully cross examined, and he was only too anxious to help me, realizing of course it was best for his own interests.

Finally, such cases cause one to think, whether after all, it would not be advisable to have some control exercised over the health of the prostitutes of our cities, for their own sakes, and they should receive consideration as well as for the protection of their patrons.

FORCED CONSERVATIVE TREATMENT OF A SURGICAL MASTOID CASE.

BY ADA HOWARD AUDENRIED, M.D.

Clinical Assistant in the Ear Department, Philadelphia Polyclinic, etc.

THE patient, Thomas M., aged 12, was not aware of any serious trouble with his ear previous to his first visit to my clinic at the Alumnæ Dispensary on June 17, 1897. He noticed that his right ear was swollen and tender on pressure over the mastoid apex.

There was no complaint of pain. Upon examination there was found a large mass completely filling the meatus and extending to the external orifice. The mass was composed of soft granulation tissue, and bled upon the slightest manipulation. The condition of the membrana tympani and ossicles could not be made out, as a view of the fundus was impossible. The skin was markedly hyperemic and edematous in the mastoid region, but no fluctuation was present.

There was a profuse purulent discharge. The auricle, standing out at a right angle with the face, was tense and swollen. The temperature was but slightly elevated, and did not range above 99° during the whole course of the disease.

The ear was syringed with hot formalin solution (one-half of one per cent). Iodin was painted over the mastoid region, and in front of the auricle. Effort was made to remove the mass with a Blake snare, but the boy was so refractory, and the mother so unwilling to have ether used, that only a small portion of the mass was removed. The ear was dressed with wet bichlorid dressing over the mastoid region, and bandaged. The patient returned next day; the mastoid re-

gion was more distended, and the ear more tense, but there was still no pain, and very little discharge. The treatment of the previous day was repeated, with advice for operative procedure, which the mother declined.

On the third day there was marked fluctuation over the mastoid cells. Feeling sure that an operation was the only means of relief, I again advised it, but this was promptly refused. I called in consultation Dr. Emma E. Musson and Dr. Charles Burnett, both physicians agreeing emphatically with me as to the necessity of an operation. They advised me to give up the case if not allowed to operate. I was strongly tempted to do so, but as I had seen, while assisting in the clinic of Dr. Seiss at the Polyclinic Hospital, a large number of mastoid cases get well under conservative treatment, and as in this case operation under ether was refused, I was anxious to see what conservative treatment would do for a case that seemed to demand operation.

Without giving ether, I succeeded in making an incision over the mastoid about one-half an inch long, which gave exit to two ounces of foul smelling pus. I washed out the abscess cavity with formalin solution (one-half of one per cent.), followed by hydrogen dioxid. When I found that the hydrogen dioxid discharged freely through the internal canal, I passed a probe through the incision and made out large areas of necrotic bone over the mastoid process. The cavity was packed with small pieces of iodoform gauze, and the ear dressed with wet bichlorid dressings. This form of dressing was continued for several days, after which dry antiseptic dressings were used. The mastoid swelling and tenderness gradually decreased, and the ear returned to its normal position. There was at no time any pain. Under the local application of cocain, I again endeavored to snare the mass of granulation tissue, but was unsuccessful because of resistance on the part of the patient. Finally I resorted to the curet, and removed portions of the tumor, thus obtaining better drainage for the discharge through the canal. Though careful directions as to diet and hygiene had been given at the beginning of the attack, these directions were disregarded. The boy played in the streets during the heat of mid-

summer, and was injudicious in his diet. After free drainage was obtained, his face, which had at first been quite stupid in expression, began to brighten. Complete recovery followed.

The case is of interest not only because of recovery under conservative treatment, but also because of its painless course.

In a paper called "Comparative Painless Mastoid Disease,"¹ Dr. Albert H. Buck, of New York, suggests "the possibility that among the various living organisms which, in suitably constructed mastoid processes, produce serious inflammation and, ultimately, destruction of the tissues involved, there may be one or more species which create toxins possessing a decidedly anesthetic power over sentient nerve fibrils. As a proof of the reasonableness of such a belief, I need only point to the painlessness of tubercular inflammations of the middle ear."

¹ Transactions of the American Otological Society, 1895.

Society Proceedings

THE PHILADELPHIA COUNTY MEDICAL SOCIETY.

October 13, 1897.

DR EDMUND W. HOLMES, of Philadelphia, read a paper on

HAY FEVER.

Synonyms:—Hay fever, summer fever, rag-weed fever, snow fever, hay asthma, rye asthma, pollen asthma, pollen poisoning, pollen catarrh, Bostock's catarrh, catarrhus æstivus, summer catarrh, summer catarrh from idiosyncrasy, typical early summer catarrh, autumnal catarrh, summer bronchitis, rose cold, peach cold, harvest cold, June cold, July cold.

In view of the limitations of time and of your amiable endurance, I will plunge at once into my subject, especially as thereby both you and I will be spared a lengthy disquisition upon Meckel's ganglion, the fifth pair of nerves and their relations to the pneumogastrics, which I should feel constrained to indulge in, were I writing for publication in to-morrow's daily press.

Hay fever was first clearly recognized by Dr. John Bostock in 1819, himself a sufferer, and by Drs. Gordon and Elliottson a year or two afterward. I find, however, that it was fashionable even at that time to regard the disease as of recent origin; yet Elliottson mentions one patient, who was 66 years old, who had it from his seventh year, and another since 1798, and a third for many years. C. L. Parry, of London, records a case in 1809, and another in 1811. John Floyer, London, 1698, noticed that certain attacks of asthma were longer and sharper in summer than in winter, and in Good's "Study of Medicine" there is a reference to a case related by Timæus, 1667, of an attack caused by the odor of roses and ipecac. Dr. Bostock found that hay fever was known to the laity, but not to the profession; nevertheless, their own king, George IV, had the disease.

A part of the mysterious origin must be set down to the indifference of the sufferers, who, from year to year, have forgotten their periodical affection and failed to consult their physicians. Of similar cause is the groundwork of the assertion that it affects only the wealthy. This is simply because with this class there is a higher intelligence and closer attention to ailments, and the fact that once having discerned the actual condition, they, in many instances, take professional advice, or go to a place of refuge, thus drawing notice to themselves, all of which things are denied to the lower (poorer) classes. It is said that there some 200,000 sufferers in the United States, at least within the range of observation of the Hay Fever Association, which, meeting annually at Bethlehem, N. H., may be held to represent the more stable and well to do. From my own experience and observation, I am convinced there are many of our working people who suffer from this affection, who do not even now, to his day, recognize the disease.

The salient trait which most attracts the attention of the student of hay fever is its annual recurrence. This is grafted on its very nature, becomes the central point of diagnosis, the chief characteristic, and to the elucidation of this all existing theories tend. It is, however, not sufficiently recognized that we come here upon a problem which we are totally unable to solve, and we can by no means be wiser on this than

we are in the discussion of other conditions.

The reasons of the rhythmic measures of the most ordinary of every-day events are not and cannot be understood. Their unfailing occurrence at the appointed time is recognized, but the determination thereof then, rather than at some other period, cannot be explained. This is true not only as to the world around us, but as to ourselves. Health and disease afford abundant illustration. The fixation of the number of heartbeats, or of the respiratory movements, of the cycle of menstruation, or of the period of gestation, is alike as indeterminable as the cause of the mutations of the typhoid temperature, of the recurrence of hectic, of the regularity of the return of the types of ague upon the second or third or fourth day, or of hay fever upon its annual date. We are bound to accept these as fixed laws, but further than this we can hardly go. As the rhythm of physiologic effects is under the control of the central nerve ganglia, and as intermittency is a peculiarly marked feature of so called nervous disorders, so far the annual return and its variations are evidence of the neurotic origin of hay fever.

The pollen theory rests upon its more obvious explanation of this difficulty. The investigations of Dr. Blackeley, of Manchester, published in 1873, from observations extending over more than ten years, are remarkable for their originality and ingenuity. He experimented upon himself and others with various agencies to ascertain the origin of the malady. He decided against the efficiency of ozone, light, heat, dust, benzoic acid, coumarin, the odoriferous principle of hay, odors of various flowering plants, as violets, roses, etc., and against various microscopic fungi. He then tested the effect of the pollen of seventy-four kinds of plants and grasses. Within thirty minutes the rye caused coryza, occlusion of the nostrils, and sneezing, lasting for six and eight hours. The apparatus for testing the quantity of pollen in air consisted of a disk of glass, with a vane to keep the glass continually facing to windward, and upon this was placed a microscopic slide one centimeter in diameter, coated with glycerin, by which the particles floating in the atmosphere were caught by the slide. During the latter part of May but few pollen grains were found. About June

rst they began to increase and his hay fever also. The variation in the amount of pollen in the atmosphere corresponded with the degree of severity of the attack. Unfortunately, in accordance with this, it has been found necessary to specify numerous individual irritants.

Emanations from hay, Indian corn, bean flowers, roses, lilies, elder trees in bloom, and various other blossoms; from nettles, *ambrosia artemesiæ folia*, *ambrosia hertifolia*, goldenrod, and from various fruits and vegetables, have been cited as causes of the disease; but I am not aware that any specialized action has been proved; all alike act (if at all) by mechanical irritation. If we define a cause as a "constantly precedent," and an effect as a "constantly subsequent" event, the need of an array of causes is most embarrassing to the immobility of the theory, but volumes for its elasticity. A theory that gave thirty or forty causes for cholera, and claimed that it depended on the "idiosyncrasy of the individual," which one evoked the disease in a given instance, would not be very tenable.

The type of the disease seems to vary in different countries, though in their essential characters the same. In England patients are said to be at their worst in June and July, in this country during August and September. In the United States some attacked in May are well by July 1st; some attacked in July are well by August 15th; some attacked in August are well by November 1st; some unfortunates suffer throughout the whole period from May to November—"the missing link."

Those suffering from the June type may occasionally have a September attack, or it may be changed into a permanent August visitation. The August type may disappear in a certain individual and reappear as a June cold. A parent having the June cold may transmit to his child July or August cold, or all three, or of several children each may have a different type, and so *mutatis mutandis*, of the others. Any or all of these forms may accrue to the progeny of asthmatic parents. It seems, therefore, as if wherever occurring, it were a manifestation of one and the same disease.

We are informed by a well-known and competent authority that the limited variation of flowering out-door plants would be, in Pennsylvania, to the extent of and not exceeding three weeks. Their punctuality to

the self-same date yearly is an obvious absurdity, depending as they do upon the variations of the seasons. As thus the date of the flowering of plants varies within certain limits, the alleged appearance of the disease upon a certain day and hour is unaccounted for. While individuals suffer variously in May, June and August, and some from May till October (connecting links between all these types), and in course of years change from one type to another, and even occasionally become well without treatment, these facts prove the immutability of the blossoming date, or, more rationally, its limited variation, the change from the control of the cause is incomprehensible.

Moreover, even as a mere irritant, as it affects comparatively few, it must act upon a condition which is pre-existent, which is, therefore, independent of and predominates it, else would the cause, pollen, produce it universally.

Under the name of hay fever, then, is included a group of symptoms having for their chief and essential characteristic their periodic appearance, classed under a variety of names according to their time of appearance or fancied cause—June cold, July cold, peach cold, rose cold, autumnal catarrh, etc.

The symptoms of the disease are a sense of lassitude, in some reaching great prostration; irritation of conjunctival, nasal, bronchial and other mucous membranes, adjacent and continuous, extending at times even to the digestive tract, and manifested by excessive secretion from the parts affected; cough; asthma; well-marked injection and swelling of the tissues; and fearful and wonderful paroxysms of sneezing. This sneezing is not ordinary. I have frequently on the street been compelled to seize some friendly support, blinded and staggered by the violent sternutations. On entering a room I have had to bury my face in my handkerchief and sneeze it out, then, recovering myself as best I might, with face like the rising sun, brace myself for work. These symptoms are not all of equal severity in every case. One patient may be troubled mainly with coryza, another mainly with asthma, while a third may go through a course, at first of catarrhal symptoms affecting the naso-pharynx, followed later by asthma. I think it will be found that, other things being equal, the younger the patient, the greater is the pre-

dominance of the catarrhal, while in older persons, and in the more confirmed cases, the greater is the suffering from the bronchial and asthmatic symptoms.

Bosworth considers the pathognomonic conditions to be the long continuance of the paroxysms of sneezing; then the watery, serous discharge, with the bluish gray "tinge of the mucosa verging on opalescence, the surface of the membrane being covered with slightly viscid, watery serum, which gives it a glassy, semi-translucent aspect," the hyperemia being "confined entirely to the large venous sinuses, the capillaries of the mucous membrane proper not being congested." I am not aware that such sharply diagnostic conditions have been seen by any one else, and it seems as if they were observed through the spectacles of his theory of nasal reflexes described in one of his preceding chapters.

Upon examination of the nasal cavities we find, upon the lower border of the turbinated bones, that the mucous membrane is disposed in thick loose folds, owing to the peculiar arrangement of the net of arteries and veins constituting "cavernous tissues," its characteristic being that it may suddenly be gorged with blood resulting in extreme distention, and almost as suddenly be collapsed and relieved. This cavernous tissue is especially thick over the inferior turbinated bone and lower and posterior part of the median septum, as well as upon the lower edge of the middle turbinated bone. This distention in acute condition quickly subsides, but in cases of chronic disease the mucous membrane is markedly thickened, the bloodvessels enlarged and tortuous, and the passages closed to a greater or less extent.

It is claimed that there are three reflex areas peculiarly impressionable, one at each extremity of the inferior turbinated bone and one (not so well proved) higher up in the vestibule (or anterior portion of each nasal cavity), which, when irritated either by disease or "*ab extra* irritation," transmit the impression to the nerve centers, and by them is imparted to distant organs. So that, for example, a tumor pressing upon the posterior extremity of the inferior turbinated bone might cause violent cough and spasm of the bronchial tubes, which disappear on removal of the growth. It is said that all parts of the cavernous tissue are not equally susceptible

to irritation; the sensitive areas are inferior turbinate (the posterior and middle reflex areas) and the portion of septum immediately opposite, being particularly related to cough and asthma; the anterior, in vestibule, to sneezing, lachrymation and other catarrhal symptoms. We might compare these with certain other cases of reflex asthma (not hay fever) benefited by removal of the tonsils.

It is asserted, in view of these facts, that in hay fever the cavernous tissues become engorged and fill up the passages, and the several areas being impinged upon, the various characteristic phenomena follow.

Of the nature of the peculiar irritant, pollen, we can say but little, excepting that the microscopic appearance of the horns and briars thereon, in the mind of the theorist, amply support the hypothesis.

The theories of hay fever may be, then, thus summarized:

(1) It may be due to chronic nasal catarrh, upon which the exciting cause acts with effect, with its dependent hyperesthesia, congestion and obstruction, the centric nervous symptoms being secondary to the hyperesthetic condition of the nostrils. The extremists even deny its existence as a separate entity, regarding hay fever merely as a condition—a form of ordinary catarrh.

(2) It may be due to functional activity or paresis of the governing (vaso-motor) centers, with hyper-excitability of the erectile (cavernous) tissues, in response to peripheral irritation. The erethism of the cavernous tissue, though secondary to the centric condition, is the immediate essential part, the most serious symptoms coinciding with the swelling of this tissue, and being dissipated with the subsidence of the same—a vaso-motor disease.

(3) It may be due to an organic alteration of the nerve fibers terminating in the nasal region, and chiefly in the three reflex areas.

(4) It may be one of the multiform manifestations of the uric acid diathesis.

In all these theories there is more or less firm belief in the agency of the pollen, either in inducing the disease or, at least, the paroxysms.

A summary of the local pathology would then be:

The symptoms of hay fever are due to the obstruction of the nasal passages, the result of chronic nasal disease. Hereby is set up a

special and extraordinary irritability of the terminal nerve fibers, perhaps with organic alteration thereof, and resultant excessive excitability of the nasal and other mucous membranes and of the cavernous tissues, together with hyperesthesia of the nerve centers, the degree of irritability varying with different individuals and under the stimulus of certain special irritants. As a result of this organic alteration and tumefaction the reflex sensitive areas are directly involved or impinged upon, and the reflex phenomena in varying proportions of cough, asthma, sneezing, lachrymation and a congestion of tissues, contiguous and continuous, with resultant general prostration, ensue. The greater the local congestion and inflammation the more constant the reflected symptoms. Certain observers declare that in all cases of hay fever there is chronic nasal disease which is the original starting point; but others deny this, maintaining that there may be only hyperesthesia, especially of the reflex areas, without further evident disease.

It is exceedingly unfortunate for the strict "localists" that all cases of hypertrophy of the nasal mucosa are not attended with hay fever, nor all cases of hay fever associated with observable organic lesions; that the excessive hyper-sensibility of the membrane in hay fever is not accounted for, nor its periodicity explained; and that many of those treated strictly according to these methods are not cured. I note an example, most carefully reported, in which with cold snare and galvano-cautery all obstructions were removed, and areas rendered anesthetic, so that a probe no longer excited reflex symptoms, yet the patient suffered from hay fever with scarcely diminished intensity. Further, it is not seen, perhaps, that there is a possibility of at least a degree of the conditions described being the result (especially in acute hyperemias) and not the cause, the peripheral susceptibility being an outward expression of an inward state.

We are grappling with a difficult problem, because we have to deal with a mucous membrane, one of the most complex structures, containing fibrous, muscular, nervous, vascular and secreting tissues, and we meet with the same rebelliousness to treatment here as in the vaginal and uterine mucosa, to the refractory and lasting nature of which diseases the huge pocket-books of the special-

ists are a bulging testimonial. Again, if a patient had typhoid fever with enteric ulcer alone, and the incautious eating of a pancake resulted in diarrhea or perforation, we would hardly call the pancake the cause of typhoid fever. The cause must be antecedent to the effect, and to my mind there must be some morbid condition, the nature of which we do not understand, which is at the bottom of this malady. No specific action of the pollen having been shown, it must be concluded that this acts merely as an irritant, an effect shared in common with any fine dust in sufficient quantity.

The confusion of theories has arisen from the fact that the paroxysms have been mistaken for the whole disease. I am inclined to believe that the effects of the different varieties of pollen are mental rather than physical, and that the only activity thereof is its possible presence as dust. Further, I am inclined to think this differentiation to be rare among hay-fever patients. I believe the disease to be in great part a neurosis, originating in local disease in the naso-pharynx, the characteristic manifestation being in part direct, the result of central nervous modifications, and in part reflex, from the action of various mechanical irritants, aided by local and constitutional factors when they exist and by seasonable and climatic influences, the periodic and peripheric susceptibility being in particular expressions of certain impressions.

So long as the cause was held to be an external one, there was little encouragement for treatment and but little progress was made. I am hopeful, however, that, with a more comprehensive study of the nasal tissues, and particularly of the nerve-supply and nerve-endings, we will learn to master this annoying malady. Our treatment should be directed in two channels:

I. *The Centric Nervous Modifications.*
The internal remedies that yield the best results are quinin in 5-grain doses up to the verge of cinchonism, zinc valerianate, extract of belladonna, tincture of opium in 5-drop doses, and phenacetin. For the dyspnea, potassium iodid, 10 grains every other night, seems to give better results than the same amount in divided doses. The Chapman ice-bag, which is merely a narrow rubber bag, eighteen to twenty-four inches long, filled with cracked ice and applied along the spine for from fifteen to sixty minutes

twice daily, has in some cases acted very happily in modifying the symptoms. Care should be taken to make the earlier applications only from ten to fifteen minutes in duration.

Under this heading would come removal to a so-called exempt region. The degree of immunity varies with the individual, and sometimes with the patients in the same locality in different years. There is much more encouragement, the tonicity of a suitable refuge is more than a temporary benefit, as in a certain number of cases the period of the disease is shortened thereby, so that the length of the necessary isolation is much diminished.

II. *The Peripheral Sensibility.* The local applications may consist of extract of belladonna in the form of a bougie; glycerin and carbolic acid, 1 to 30; or coating the surfaces with vaselin—though to some both glycerin and vaselin act as irritants—and applying a 4-per-cent solution of cocain.

This last drug must be applied thoroughly to be of service, and in fact a test-experiment may be made, which will give an inkling as to the source of the symptoms. If cocain be applied thoroughly to the nasal cavities alone of a patient with a swollen face, injected conjunctivæ, excessive lachrymation, sneezing and serous discharge from the nose, all these symptoms will be greatly ameliorated and held in abeyance as long as cocain anesthesia is kept up. Of course, the asthmatic symptoms cannot be thus relieved. Unfortunately, as we well know, the constitutional effect of cocain, the nausea, dizziness, and subsequent depression, are so disagreeable as to prohibit the excessive use of the drug necessary to keep up that effect.

I have found a 2 per cent. solution of cocain phenate with boric acid solution (5 grains to 1 ounce) sprayed into the nose at intervals, of more use than anything else, the carbolate aids the anesthetic effect and prevents too rapid absorption of the drug.

Of the local treatment by cauterization or removal of hypertrophy, I have very little to say. The means employed are various; the wire loop or snare, or the use of caustics such as chromic, nitric, or glacial acetic acids, or the galvano-cautery—the severity of the operations ranging from a superficial scarification to a more or less extensive removal of

tissue *en masse*. Many cases thus treated have relapsed; some few cures are reported. I do not emphasize these measures, because they should not be considered as treatment specific for this disease. In suitable cases, judiciously employed by removal of diseased tissue, as well as by the reduction of hypersensibility and abnormal congestions, the system and part affected are put in the best possible conditions, not only for recovery from the attacks of hay fever but for the maintenance of the general bodily health, by the application of the familiar surgical principle of physiologic rest. Let us be assured, however, that we are not dealing with something mysterious and inscrutable depending upon some obscure condition of atmospheric influence or irritation coincident with a mere idiosyncrasy, but with a true morbid condition existing in the individual, the whole nature of which I regret to say we are yet unable to understand. Hay fever is, probably in its incipency, a disease of the complex tissues of the naso-pharyngeal mucosa peculiar in that the irritant affects primarily the terminal nerve fibers, the implication of the secreting and vascular elements being secondary, as is shown by the fact that the engorgement of the tissues of the nose and of the face and the excessive lachrymation are largely due to the violent prolonged paroxysms of sneezing. The pathologic condition subsequently extends by continuity to the bronchial mucous membranes, and later results in a hyperesthetic condition of the allied centric nerve ganglia. Pollen, like any other fine dust, is a mere mechanical irritant.

For those afflicted by the disease who hope to outgrow it, I may say, although I have known one case of a cure by a trip to Europe, in a gentleman of sixty; another sufferer, who died at the age of ninety-four, had had the disease every year for fifty years.

Personally, with regard to the treatment, with all due respect to our modern rational and experimental therapeutists and to those of our rhinologists who gouge and burn and saw, in spite of all the remedies that I have recommended for others—for myself when an attack comes on—as it has for twenty two years, and probably will for twenty-two more if I live—I shun drugs and drug stores and specialists, and flee like a bird to the mountains.

THE PHILADELPHIA POLYCLINIC

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PHILADELPHIA, NOVEMBER 6, 1897

THE SPECIAL WEEK OF POLYCLINIC WORK.

THE "special weeks" in Ophthalmology begun five years ago, have become an important feature in the work of that department of the Philadelphia Polyclinic. Those who have attended them, speak in high appreciation of the benefit they have received, and frequently write inquiries when the next will be, and what subject will be taken up; or to suggest some subject that the writer feels especially interested in. Every practitioner feels the need at times of getting away from his daily routine and seeing the practice of somebody else, the need of looking at his everyday problems through the eyes of others and from a different point of view. The phenomenal success of post-graduate schools attests this.

But it is a fact that a great many who cannot get away from practice for a month, or six weeks, or longer, could leave for a single week, if they only knew when they might utilize the time to the best advantage. Of course, in one week it is impossible to give a systematic course of instruction, covering any special department of medicine; but that is not what the practitioner needs. What he particularly desires, is the opportunity of hearing discussed the latest advances

in diagnosis or treatment, and of seeing in actual use the new instruments, appliances or methods of procedure, that he has read about in the medical journals, or heard mentioned in medical societies. And in this direction he can gain more in proportion to the time consumed in the special week than in a longer course.

The special week is arranged so that the whole time, at least all the time that one cares to give to the work, can be occupied to the best advantage. It includes not only the usual clinical work, the examination of cases and clinical teaching, but also a thorough and more minute presentation of the newer ideas; and, in the conferences particularly, offers opportunities for free discussion of points that may have attracted attention in previous reading or in the clinical work. In these conferences, the students, who are often themselves teachers in their specialty, and practitioners of wide experience, take an active part in the discussions. The members of the Polyclinic Faculty only take the lead to start the discussion, and to insure the keeping of it on profitable lines. The special week thus offers many of the best advantages of both post-graduate clinical work and of a good medical society devoted to the particular branch considered.

We would suggest that readers, interested in the wider application of this plan, should write to the Philadelphia Polyclinic suggesting topics for special weeks in other branches.

The coming week in Ophthalmology is to be devoted to ophthalmic operations. And since one who does such operations cannot see too much of the work of others, it is likely that many who have studied elsewhere will be attracted by the opportunity of seeing the work of the Philadelphia operators, and hearing their criticisms of operative methods in general use. The schedule for the week, which has been issued, has indicated various

important subjects to be taken up; but it may happen again, as it has on previous occasions, that some of the most profitable discussions of the week arise from the suggestions of those who come to take the course as students. While the institution for post graduate medical teaching is fulfilling a very important mission in bringing physicians together in the specific rôles of teacher and pupil, it is a place where the teacher enjoys exceptional opportunities for being taught. The making of the Polyclinic a center for the diffusion of knowledge by mutual instruction increases its usefulness.

E. J.

In the Clinics

IN Dr. S. Solis Cohen's clinic, a case of *thoracic aneurism* presented, in which *tracheal tugging* was easily demonstrated. Dr. Cohen believes this sign to be quite significant of aneurism of the arch.

* *

IN March last, Dr. Rugh did an *osteotomy* upon the right tibia and fibula at the junction of the middle and lower thirds, and cut the tendo-Achillis to straighten the leg of a boy 12 years old. Plaster-of Paris was applied and kept on for eight weeks. The wound healed without incident and there was entire absence of pain and elevation of temperature (excepting for twenty-four hours after opera-

tion, when it reached 99.4° F.). The result of this absence of irritation and inflammation was delayed union, as the boy was in perfect health and had no constitutional diathesis. Six months later there is more or less motion though ossification is gradually taking place. Massage and manipulation are being used and the parts held in place by a sodium silicate dressing. If this does not suffice irritation will be produced by a drill run through the lines of fracture in various directions, leaving the operation of wiring as the last resort.

BOOKS RECEIVED.

SIMON'S CLINICAL DIAGNOSIS. A Manual of Clinical Diagnosis by Microscopical and Chemical Methods. For Students, Hospital Physicians and Practitioners. By Charles E. Simon, M.D. New (2d) Edition, Revised and Enlarged. 8vo, pp. 530, with 135 engravings and 14 full-page colored plates. Philadelphia: Lea Brothers & Co. 1897.

HARE'S PRACTICAL DIAGNOSIS. The Use of Symptoms in the Diagnosis of Disease. By Hobart Amory Hare, M.D. New (2d) and Revised Edition. 8vo, pp. 598, with 201 engravings and 13 full-page colored plates. Philadelphia: Lea Brothers & Co. 1897.



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ABSTRACTS FROM CLINICAL LECTURES ON OPHTHALMOLOGY DELIVERED IN THE PHILADELPHIA POLYCLINIC.

BY G. E. DE SCHWEINITZ, M.D.,

Professor of Diseases of the Eye in the Jefferson Medical College and Philadelphia Polyclinic.

CASE I. *Bilateral Simple Glaucoma, One Eye being Blind; Operation first upon the Blind Eye.* This patient, a married woman, aged 30, born in America, came for treatment on the 2d of October, with the following statement: The vision in the right eye began to fail six years ago, shortly after a severe attack of influenza. Gradually the dimness of vision increased until practically complete blindness supervened. Within the last year the vision of the left eye has been failing and there has been one attack of temporary, total blindness, and occasionally some brow pain.

The vision of the right eye amounts only to faint light perception in one small area in the temporal field. The disk is a vertical oval, deeply and completely cupped (-4 D.); the veins are enormously swollen and tortuous; the arteries are about normal in size; the tension is $+1$; and the anterior chamber is moderately shallow and the cornea slightly steamy. The vision of the left eye is $\frac{1}{10}$, the anterior chamber is about normal in depth; the disk is still somewhat capillary, but completely cupped (-2 D.); the veins and arteries are normal in size; there is a faint corneal haze and the tension is $+1$. Perimetric examination reveals an irregularly contracted visual field, the greatest contraction being upon the nasal side and downward, where the blind area reaches within five degrees of the fixing point. The red field is similarly contracted and proportionately greater than the white field.

The urine contains a trace of albumin, and its sediment is composed of epithelial cells and a few blood corpuscles. There is no history of illness other than the attack of epi-

demio influenza which has previously been described, and there are no signs of cardiovascular disease, and no record of rheumatism.

The patient was admitted to the hospital on the day of her arrival, placed in bed, given full doses of strychnin and a solution of eserine sulfate, a quarter of a grain to the ounce, was instilled into each eye four times daily. On the second day after the beginning of this treatment there was slight improvement in the ocular conditions. The vision of the right eye in the small patch upon the temporal side of the field changed from quantitative to qualitative light perception. The vision of the left eye rose to $\frac{1}{10}$, and there was some widening of the visual field. At the end of another forty-eight hours these indications of improvement ceased. Indeed, if anything, there was depreciation of vision in the left eye.

The case, you observe, is a typical one of so-called simple glaucoma and the indications evidently are for surgical interference, or the performance of an iridectomy. Now, although iridectomy is usually a very successful operation in acute glaucoma, the results in the chronic forms of the disease are much more problematical. Moreover, in a certain number of cases untoward results follow the performance of a perfectly smooth iridectomy, and there develops a state of affairs to which the name *malignant glaucoma* has been given. This is characterized by the appearance, usually one or two days after the iridectomy, of marked increase in

tension, obliteration of the anterior chamber, fixation of the coloboma, marked ciliary tenderness, chemosis of the conjunctiva and swelling of the lids, together with rapid loss of vision. Another interesting fact in regard to these cases of malignant glaucoma is the predisposition of the female sex. In twenty-four cases collected by Friedenwald, eighteen of them were women.

Malignant glaucoma is not of frequent occurrence (Hirschberg has seen five eyes thus affected among 208 operated on for simple glaucoma), but none the less every precaution should be taken to avoid it, and when the surgeon is confronted with a case in which one eye is practically blind and the other eye still possesses at least one-half of normal vision, it is the part of wisdom to follow a rule laid down by Schweigger, Hirschberg and other experienced operators, viz., "in all cases of chronic glaucoma affecting both eyes operate first upon the worse one, even if it is absolutely blind. Should this be followed by the normal healing process, the second eye may be operated upon without the least apprehension."

Although the last portion of Schweigger's rule is not without its exceptions, as has been pointed out by Friedenwald, at all events it furnishes the best guide for the treatment of the eye which still retains vision. If the operation on the blind eye is not complicated by unfavorable reaction, in the majority of cases iridectomy on the fellow eye will be followed by a normal healing process. I therefore perform the usual broad peripheral iridectomy on the right or blind eye first. If the healing process is normal, I shall make a similar operation on the left eye. In the mean time, both eyes will be bandaged lightly and the eserine treatment will be continued in the left eye.

One other point of interest is connected with this case, namely, that the indistinct vision which probably first indicated the

glaucomatous process is in close relationship with a severe attack of epidemic influenza. I have noted this association several times, and in the excellent clinical study of 167 cases of glaucoma simplex by William Zentmayer and William Campbell Posey, the influence of influenza as a causal factor was established in seven cases, and the authors conclude that the increase in the frequency of glaucoma simplex, which was found to occur in the later years of their investigation, was due to the deleterious action of influenza, which has manifested itself so frequently within the past decade.

CASE II. Chronic Conjunctivitis Complicating Senile Cataract; Treatment of the Eye Preparatory to Operation. The second case, a woman, aged 63, is suffering from double senile cataract of the ordinary type, the left cataract being slightly more advanced and riper than the one on the right side. I shall perform the ordinary operation of extraction by the combined method. Before proceeding to operation I wish, however, to explain to you how these eyes have been treated in order to bring the conjunctiva, which, when she came to the hospital five days ago, was markedly inflamed and secreting a moderate amount of muco-pus, into a healthy condition. To have operated under these circumstances would, as you know, have caused infection of the wound, in all probability, and the loss of the eye.

The treatment was the following: (a) Washing the eyes, especially along the ciliary margins, several times a day, with tepid water and castile soap; (b) irrigating the conjunctival cul-de-sac frequently with a solution composed of boric acid, 10 grains, sodium chlorid, 2 grains, distilled water 1 ounce; (c) spraying the nostrils thoroughly with a mixture of Dobell's solution and listerine, or else with hydrogen dioxide solution and distilled water in the proportion of 1 to 3. Under this treatment, there was rapid subsidence of the conjunctival inflammation, and at the end of twenty-four hours it had assumed its natural transparency and had stopped secreting the muco-pus which has been previously described. For safety's sake, however, the treatment has been

continued until the present time, and now you see the eye is white, shining and perfectly fitted for operative interference. You will notice that all irritating substances were excluded from the conjunctival treatment, for example, mercury bichlorid, or any other irritating germicidal solution, and nitrate of silver, or any other strong astringent, because I am entirely in accord with Knapp's well-known advice in regard to cataract patients, namely: "It is desirable for days previous to the operation to protect the eye from anything which may produce congestion, and further desirable that patients should remain for several days in the hospital, perfectly resting their eyes and bodies, and frequently washing their faces and eyes with soap and water. This simple regimen will change a congested and irritated conjunctiva into a pale and shining membrane."

In suspicious cases it is sometimes advisable a day or two before the operation to apply an ordinary double figure-of eight to the eye over several squares of antiseptic lint laid next to the lids. At the end of twenty-four hours the bandage is removed. If the eye is flushed, if the conjunctiva is watery,

if the margin of the lid is slightly cedematous, and particularly if the gauze is stained with mucus or muco-pus, the eye is not ready for operation. Some judgment must be exercised, however, in the application of the so-called preparatory bandage test, because sometimes the pressure of the bandage will cause a flushing of the conjunctiva and favor abnormal secretion which otherwise would not develop. In a case like the present, for example, this bandage is certainly not required and would probably do more harm than good, although I have often used the test under other circumstances with satisfaction.

The only other complication existing in this patient is a slight imperfection in the light field, which is somewhat contracted upon the nasal side, and shallowness of the anterior chamber. We shall probably find upon extraction a large lens. It is partly for this reason and chiefly because the iris does not thoroughly dilate under atropine that I shall extract the cataract by the combined method.

REPORT OF POLYCLINIC SKIN DISPENSARY FOR THE YEAR ENDING OCTOBER 1, 1897.

BY J. ABBOTT CANTRELL, M.D.,

Professor of Diseases of the Skin in the Philadelphia Polyclinic and College for Graduates in Medicine, Dermatologist to the Philadelphia Hospital and to the Frederick Douglass Memorial Hospital.

THE following record of the Skin Dispensary of the Philadelphia Polyclinic shows the work that is being done in the department and gives in tabulated form the variety of cases that have been observed during the period mentioned. In the year ending October 1, 1897, there were treated 884 new cases, with 1857 return visits. Of this number 811 were in the white race, while the colored population gave 73, thus allowing the class to carefully observe the differences manifested. There were 434 males, of whom adults (over 15 years of age) numbered 307, children (between 5 and 15 years) 78, and

infants (under 5 years), 49 cases. The females numbered 450, divided into 311 adults, 85 children and 54 infants.

The diagnoses follow:

Acne	66	Dermatitis	20
Acne rosacea . . .	20	Dermatitis medica-	
Angioma	1	mentosa	7
Angiokeratome . .	1	Dermatitis venenata	30
Alopecia	7	Dermatitis solari, .	2
Alopecia areata . .	4	Dermatitis herpeti-	
Anthrax otic pigmen-		formis	3
tation	1	Dermatitis papilla-	
Carbuncle	1	ris capillitii . . .	1
Callosities	1	Eczema erythema-	
Chl asma	5	tose	35
Cu is aserina . . .	1	Eczema papulosa . .	22
Clavus	1	Eczema vesiculosa .	32
Dysidrosis	3	Eczema pustulosa .	29

Eczema rubrum . . .	108
Eczema seborrhoicum	34
Eczema squamosa . . .	44
Eczema fissum . . .	5
Epithelioma . . .	17
Erysipelas . . .	1
Erythema multiforme	10
Erythema nodosum . . .	2
Ecthyma	8
Folliculitis	5
Furunculosis . . .	10
Gangrene diabeti-corum	1
Herpes labialis . . .	1
Herpes zoster . . .	25
Hyperidrosis pedum	2
Impetigo contagi-osa	72
Ichthyosis	72
Keloid	1
Lichen planus . . .	8
Lupus erythema-tosus	5
Lupus vulgaris . . .	1
Lucoplakia buccal-lis	1
Miliaria rubra . . .	1
Nævus pigmentosus . . .	1
Pediculosis capil-litii	8
Pediculosis vesti-mentorum	6

Pediculosis pubis . . .	1
Psoriasis	25
Pityriasis capitis . . .	5
Pityriasis maculata . . .	1
et circinata	15
Pruritus	15
Prurigo	1
Rubella	3
Rotheln	3
Scabies	35
Sarcoma	1
Syphiloderma (ear-ly)	9
Syphiloderma (late) . . .	36
Sycosis non-parasitic	6
Seborrhœa sicca . . .	9
Seborrhœa oleosa . . .	1
Scleroderma	1
Scleroderma cir-cumscrip-ta	1
Tinea circinata . . .	15
Tinea sycosis	1
Tinea ton-urans . . .	14
Tinea kerion	3
Tinea favosa	4
Tinea versicolor . . .	11
Urticaria	26
Varicella	7
Vitiligo	3
Verruca	10
Ulerythema sycosi-forme	1

Alopecia areata was seen in one female of thirty-three years, in whom there had been five attacks during a period of fifteen years, while the youngest patient affected was only six years of age.

Angioma in one case, in a female of seventy-five years, occupied the greater portion of the body.

Angiokeratoma of the scrotum occurred in a decrepit male of eighty two.

Carbuncle occupied the occipital region in a female dressmaker of thirty six years.

Chloasma was observed upon the face of two female children of seven and ten years.

Dermatitis herpetiformis occurred in one male and two females, in one case occupying the face, while the others were general.

Dermatitis papillaris capillitii occupied the occipital region in a colored man of thirty-three years, who stated that the condition had several times been removed by operation, but had returned each time.

Epithelioma was seen in seventeen instances, eight females and nine males, while the ages ranged from forty years to seventy-eight, except in one instance which occurred at thirty-two years of age in a woman dress-maker.

Erythema multiforme presented itself in ten persons, eight males and two females, the youngest child to be affected was eight years, while the oldest person was twenty-six years. In one instance, a boy of eleven years, the condition was recurrent and showed attacks about once or twice a year for a period of three years.

Erythema nodosum was observed in a female of twenty-two years, and in a boy of nine years. The female, a waitress, had lesions along the tibial region, the usual site.

Herpes zoster attacked in all twenty-five persons, twenty males and five females, being observed in the following regions: Genito-crural 1, right occipito-cervical 3, left infra-orbital 3, right infra-orbital 2, left intercos-

Of the patients Pennsylvania contributed 869, who came from the following counties: Philadelphia 843, Delaware 11, Chester and Montgomery each 3, Schuylkill 2, and 1 each from Luzerne, Bucks, Potter, Susquehanna, Lancaster, Cumberland and Cambria. New Jersey, 11 cases: From Camden county 3, Burlington 5, Morris 1, and Gloucester 2. Delaware 2, both from New Castle county. Maryland only 1, from Worcester county. Washington, D.C., contributed 1 case.

As some of the cases presented in this report show peculiarities worthy of mention, it may be stated that

Acne rosacea was observed in 14 women out of the total number, and that of this list 13 were workers in and about the kitchen fire, while the men labored both in and out of doors.

Alopecia occurred in one female seventeen years of age, who was almost devoid of hair.

tal 5, right intercostal 3, right lumbar 3, right brachial 1, ileo-hypogastric 2, left lumbar 1, and left brachial 1. The ages ranged from 5 to 60 years. The occupation of the males was, in the majority of instances, inside work, while the females worked mostly in the kitchen. In October and December, 1896, and January, 1897, there were 4 cases each; in November, 1896, there were 3 cases; in March and June, 2 cases each, while February, April, May, July, August and September, had only 1 each.

Impetigo contagiosa, from a list of 72 cases, presented 4 in adult life, with the ages thirty-two, sixty-four, twenty-one, and forty-eight. In one female, of fifteen years, the lesions were of annular type, upon the right upper lip.

Keloid was observed in one colored man, of twenty-three years, the lesions being situated upon the left side of the chest, and occasioned by a razor-cut.

Leucoplakia buccalis occurred in a male weaver, twenty-nine years of age, and showed lesions upon both sides of the cheeks, with a group of nine or ten lesions, while a linear streak was found along the interdental line of the left side.

Lichen planus was seen in 8 instances, 6 being males, and 2 females. In one female, the condition had existed for one year, it being the second attack she had had in ten years.

Lupus erythematosus happened in two males and three females. It occupied the right cheek in one, left upper eyelid in one, tip of nose and back of hands in one, left cheek in one, and left ear in one.

Lupus vulgaris occupied the face, neck, and shoulders in the only case, a female of nineteen years. The condition had existed for years, and had been operated upon by several different dermatologists, without bettering the manifestations much.

Psoriasis was observed in 2 of the 25 in-

stances, in one a male of eight years, and in another a female of seven years.

Rubella, in one instance, was seen in a colored woman of thirty-four years.

Scleroderma occupied the upper portion of the chest and shoulders in a female of twenty-five years, it being of one and one-half years' duration, having begun shortly after the birth of her first child.

Scleroderma circumscribed occupied the left leg in one small patch in a male of eighteen years.

Sycosis non parasitica was seen in six instances, three of which occupied both cheeks, while in one it attacked the left cheek alone, in another the right cheek alone, while in another it was observed only upon the upper lip.

Tinea kerion, in one instance, attacked the right cheek, it having followed a *tinea circinata*.

Tinea favosa occurred, in one instance, in a fourteen year old American girl.

Tinea versicolor was witnessed in eleven instances, one of which was found attacking the right shoulder of an elderly male, while another was observed in a colored man.

Ulerythema sycosiforme, the second instance in which this affection had been observed in this clinic, was seen upon both cheeks, in area of about two inches on either side.

Varicella was found, in one instance, to have attacked a seaman of thirty years.

Vitiligo was observed in 3 cases, 2 of which were whites and 1 a colored woman. In one, the colored woman, the lesions occupied mostly the face and upper portions of the shoulders and back in small but excessively whitened areas.

The best investment of a dollar a year is to subscribe for THE PHILADELPHIA POLYCLINIC.

In the Clinics

IN Dr. S. Solis-Cohen's clinic, *cannabis indica* is frequently used for the relief of pain referred to the stomach or intestines, irrespective of its cause. For this palliative purpose cannabis is far superior to opium.

* *

THE presence of a *refractive error* or *muscular anomaly* may, not infrequently, be surmised from the *facial expression*. When the intra- and extra-ocular muscles are under constant tension to sustain clear and single vision, those under the control of the 7th nerve participate to a certain extent in the effort, as manifested by their unusual and unsymmetric contraction. It is from this source that frowns, wrinkles and furrows in the skin, whose effect is to apparently increase the age of the individual, are developed and maintained. Thus, Dr. Hansell states, that, in addition to the many other good results of wearing proper corrections and of tenotomies, they are of value in preserving the natural and unconstrained expression. In other words, the indelible marks of time are often to be avoided or delayed by attention to the ocular conditions.

* *

IN a case of *chronic rheumatism* characterized chiefly by severe pain in both hips and thighs and extreme emaciation, Dr. Rugh prescribed sirup of hydriodic acid in dram doses thrice daily, but without effect. The dose was then doubled, and in a week's time the pain had entirely disappeared and two months later had not returned. Besides this, strychnin sulfate (grain $\frac{1}{10}$, thrice daily) was given and about twenty pounds in weight were gained in six weeks. Pain had been present almost continuously for the previous four or more months and yielded to nothing except morphin in decided doses; in fact the anti-rheumatic remedies had nearly all

been tried, but without effect. Iodin in other forms was used, but so seriously deranged the stomach as to make its discontinuance necessary. There remains a fibrous ankylosis of the right hip and contracture of the adductor muscles of the left thigh, which will be remedied by operative measures later.

Selection.

THE CLIMACTERIC PERIOD IN MEN.

ALTHOUGH there is no abrupt cessation of function in the male at all corresponding to the menopause in women, there is nevertheless a "critical period" in his physiological life. The change is one intimately associated with nutrition. The digestive and assimilative functions begin to slow down between forty and fifty years of age, and the organism, as a whole, undergoes a readjustment. If the digestion remain active while assimilation becomes less perfect, an increase in weight, due to accumulation of fat, takes place. If, on the other hand, digestion is the first to fail, symptoms of dyspepsia, with associated loss of flesh, characterize the period of transition. It is in athletic individuals of active muscular habit that the manifestations are most marked. A time arrives when lessened nutrition renders it impossible to maintain the normal activity of the muscular system. The eliminatory organs perform their function less perfectly, and the processes of disassimilation are hindered. The accumulation of the products of metabolic tissue change in the system reduces the vitality of the subject, and indisposes him to the routine amount of exercise. If the subject fail to grasp the significance of these sensations he renders himself liable to various functional disturbances which may culminate in organic disease of the organ or organs most exposed to the strain. Even if he yield to the pressure put upon him, it takes some time for the muscular and vascular systems to tone down to the reduced standard of vitality, and during the period of adjustment he is apt to suffer from a variety of more or less distressing feelings, which not unrequently determine mental depression. The change is not unlike that experienced on the return home after a holiday spent in active physical exercise. There is the same want of harmony between nutrition and muscular exertion, but, in the waning adult, there is, of course, the factor of increasing arterial rigidity and general loss of tone on the part of the tissues. The so-called "critical period" is only critical in so far as the readjustment of the organism to changing conditions is interfered with. Those who have always led a sedentary life are less subject to these disturbances than the more robust and actively disposed. Once the harmony of the functions has been restored the individual resumes his normal existence, though on a lower scale, and he ceases to be liable to the visceral encroachments which are apt to result from "retrogressive irregularity."—*Med. Press and Circular.*

THE PHILADELPHIA POLYCLINIC

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PHILADELPHIA, NOVEMBER 13, 1897

LARGE OR SMALL CLASSES IN MEDICAL TEACHING.

THERE is much discussion from time to time in the medical press, concerning the relative advantages of large classes and of small classes in the teaching of medicine.

It is said, in favor of the present system of didactic instruction to large classes, that the necessary cost of equipment and maintenance of a progressive medical school, in these latter days of exact research, is so great that only by the fees derived from hundreds of students can a school be properly supported; and the fact is pointed out that through this method of instruction those who are now the leaders and active workers of medicine, obtained the foundation of their knowledge. To this, it has been replied with considerable force that the major portion of the revenues derived from the fees of students does not go to the equipment of laboratories, and the payment of those who do the actual work of instruction, but to a few showy lecturers, who are given the titles and honors, and to whom the indirect emoluments from position in the profession leading to large fees in consultation and as experts, would be ample compensation for their very few hours, weekly, of actual work.

The answer given to this, is, that it is the reputation of these men that upholds the reputations of the colleges with which they are connected, that their positions are the reward of years of earnest, underpaid labor, and the salaries or fees given to them are not excessive, when one considers their ability and professional standing. Thus the question revolves in a circle, each side alleging as cause that which the other takes to be effect. While the majority of men outside the colleges take the view of those who object to the large salaries paid the few professors, and the small sums given to the instructors and demonstrators upon whom the burden falls, those who occupy, or hope to occupy, profitable chairs, are in favor of letting things alone. The prospect is that, as trustees generally seem to take the same view as the latter, for the present things will be let alone.

Those who advocate small classes point to the admitted fact that medicine is to be learned not so much from books and lecturers as by actual contact with the patient or with specimens normal and morbid, and by actual performance of the varied processes of chemic and microscopic investigation. To do this thoroughly, a small class under the care of a competent instructor, who can devote proper time to the observation and correction of the errors of his pupils, is absolutely necessary. Competent men, they say, should be obtained for these positions and should be well paid. Let the colleges attract large classes so that the general expenses of maintenance may be paid from an adequate fund, but let these classes be divided into small sections and taught by a sufficient number of good men rather than gathered into droves and talked at by men, however learned or eloquent. To this we have seen no reply.

In our opinion, however, the course of evolution of medical instruction must be considered in studying its present status, just as

the course of evolution of animals must be considered in studying their present state. That the medical lecture was instituted and has for so long held its place in the course of teaching is *prima facie* evidence that it meets some need. That laboratory instruction and bedside instruction have grown up along side of the lectures and are continually enlarging their field, proves that these methods of teaching have also their usefulness, and indicates that their normal growth will be sufficiently rapid to fulfil the requirements. Medicine is not alone an art, it is a science. It is a science whose proper understanding requires the understanding of many other sciences and the illumination of whose problems requires light from many diverse sources. As an art, too, it has definite principles that must be taught at the outset to prevent aimless groping by the student; for no individual experience can replace the lessons of the ages. History and philosophy, as well as mathematics and natural philosophy must be used in the proper teaching of the principles of medicine. And here is the true field of the lecturer. It is his function to teach principles and to enforce and illustrate these principles and their applications by all the resources of a varied learning. Such work cannot be done at the bedside or in the laboratory. Here the practical side of medicine is to be made prominent. Taking for granted a knowledge of principles, the laboratory or clinical instructor teaches the student necessary manipulations and methods of observation, and exhibits to him the characteristics of the structures and substances examined, or explains the necessary details of diagnosis or treatment; and while in this connection it is necessary also to allude to fundamental relations, such allusion is as incidental and illustrative as the practical allusions of the lecturer on principles. The properly organized medical school will, therefore, consist of some half-dozen lecturers

fully equipped by general culture, and by the study and practice of medicine or the allied sciences to lecture instructively upon principles and relations which do not necessarily obtrude themselves upon the laboratory student, or upon the clinical investigator; and a large corps of laboratory and bedside teachers who will supplement the work of the lecturers by systematic courses to classes of a convenient size.

S. S. C.

Editorial Note

Dr. Paquin's Defense.—In another column we publish a letter from Dr. Paul Paquin, and an extract from the *St. Louis Republic* of October 17, 1897, containing his version of the quarrel between Mr. Milliken and himself. While we differ from Dr. Paquin's statement of the attitude of the "honorable" if not the "broad men of the profession" towards the kind of advertising he has indulged in, we are loath to believe that there has been any deliberate fraud in the preparation of his serum, and our sincere desire is that his good name shall escape unscathed from the ordeal before it.

S. S. C.

Special Notice

A Bacteriologist Wanted.—The Laboratory Committee of the Polyclinic Hospital desires the services of a bacteriologist, whose duties will consist in teaching pupil physicians and doing the usual laboratory work of a hospital. A salary of \$100 per annum and fifty per cent. of the pupils' fees, will be paid the incumbent.

Correspondence

THE CONSERVATIVE TREATMENT OF ACUTE MASTOIDITIS.

To the Editor of the Philadelphia Polyclinic:

In your issue of November 6, 1897, page 451, I am referred to as having advised Dr. Audenreid to give up a case of mastoid inflammation if she were "not allowed to operate."

I saw the case in question, only once, it having been brought to my office by Dr.

Audenreid's assistant, by whom I sent the advice, *not to operate, if operation became necessary, unless the patient were placed in a hospital, where he could be watched, and the after treatment could be properly carried out.* The message evidently was not accurately delivered. I am conservative regarding operations in acute mastoiditis, though the reference alluded to above, tends to give the impression that I am swift to operate instead of willing to try conservative measures first.

If you will publish this note in your next issue, you will greatly oblige,

Yours, very truly,

CHARLES H. BURNETT.

DR. PAQUIN'S DEFENSE,

November 1, 1897.

To the Editor of the Philadelphia Polyclinic :

I have been advised that marked copies of the *St. Louis Republic*, of October 10th, in which a dastardly attack on me appears, have been sent to the medical press of this country.

I only ask fair play in this matter. While I have no desire to try the case outside of the courts, I respectfully beg your favorable consideration of the enclosed reply. The attack was made when it was known that I was absent from the city; it was done at the instance of a violent and cowardly enemy, whose grievance is the supposed loss of a coveted fortune at the expense of the sick, by a refusal on my part to countenance his nefarious insults and schemes involving the honor of the medical profession. To defeat him, I sacrificed every penny I had, or secured from friends. His purpose is to ruin my name and reputation and on the wreck establish himself. The *Republic's* retraction of the libel shows the absolute fallacy of the charges. Yours truly, PAUL PAQUIN.

From the *St. Louis Republic*, October 17, 1897.

DR. PAQUIN'S FRANK STATEMENT.—In the issue of the *Republic* of October 10th, under the caption, "Dr. Paul Paquin's Methods," the filing of an answer was noted in the suit of Paquin and Owen *vs.* Milliken in the St. Louis Circuit Court. The *Republic* has no desire to injure Dr. Paquin by the publication in question, and takes this occasion to assure the public and the medical profession that it has no ground on which to attack Dr. Paquin as a reputed scientist, or to cast suspicion on remedies prepared, dealt in or recommended by himself, as the result of experiments and researches on his part, and upon Dr. Paquin's return to St. Louis, takes pleasure in presenting his reply to

the above-mentioned article, which was, of course, only an ex-parte statement of the case at law between John T. Milliken and Dr. Paquin, and, therefore, nothing more than the claims of an interested party. If the allegations of the petition of Owen and Paquin for redress at law were published in connection with Milliken's alleged reply of last Sunday, Dr. Paquin would appear in a much better light.

Dr. Paquin says that Milliken's reply to his petition, and the publication of a private letter—a publication he considers cowardly and beneath manhood—which circumstances had forced upon him, much to his abhorrence, was merely to array the members of the medical profession against him and gain their sympathy in his suit. Paquin states that John T. Milliken, for a total investment of something like \$13,500 all told, between January, 1895, and November of the same year—nine months only—received from him \$22,500—\$15,000 in cash and \$7,500 in notes. This money, Dr. Paquin alleges in his suit, was obtained fraudulently. Hence his refusal to pay the notes. Hence, also, his suit to cancel his contract and his claim for damages on grounds yet to be made public.

As to his relations with the press, Dr. Paquin says that it is true that he has supplied certain papers that he considered respectable with material for proper articles on sanitary and medical subjects of public interest, as is consumption, and every word he supplied he claims that he knows to be true. "Not infrequently," said he, "such material was sought from me, and in defense of my rights and claims I have occasionally sought proper public redress in such print as was deemed best. The honorable and broad men of the profession do not object to this; whatever others may do. This is legitimate. It is not unprofessional advertisement. I have never attempted such advertisement.

"As to the scientific value of the serum," says Dr. Paquin, "I leave that for competent men to discuss. I am quite content with the tribute paid my humble researches by such men as Foster, McFarland, Richet, De Schweinitz, Landon B. Edwards and several scientists and physicians, abroad and in this country. I am prepared to verify every statement I have ever made concerning serum in consumption, and it is not altogether wanting in probative force, that Milliken himself has resorted to experiments and provided means, in violation of his contract with me, as I assert, for the production of the very remedial agent which he now says is without scientific or practical merit. It is not usual for speculators to try and imitate or counterfeit worthless articles."

Therapy of Placenta Prævia.—Heil (*Centralblatt für Gynäkologie*, 1897). Version by Braxton-Hicks method is indicated: (1) In extreme anemia of the mother; the welfare of the child should not be considered; (2) If the loss of blood has not been large, but the child is dead or the chances are bad of obtaining a living or viable child. And in all other cases, if the cervical canal is not dilated it should be firmly tamponed with gauze.

New Publications

HARE'S PRACTICAL DIAGNOSIS. The Use of Symptoms in the Diagnosis of Disease. By Hobart Amory Hare, M.D. New (2d) and Revised Edition. With 201 engravings and 13 full-page colored plates. 8vo, pp. 598. Philadelphia: Lea Brothers & Co. 1897.

The second edition of this useful book bears many marks of genuine revision. The plan of the work is good. The merits and the faults of the execution are in general those of the first edition. The call for a new issue so soon after the publication of the first, must have been gratifying to the author. The publishers have, as ever, done their work thoroughly.

A MANUAL OF CLINICAL DIAGNOSIS, BY MEANS OF MICROSCOPIC AND CHEMICAL METHODS, For Students, Hospital Physicians, and Practitioners. By Charles E. Simon, M.D., late Assistant Resident Physician. Johns Hopkins Hospital, etc. Second Edition, Revised and Enlarged. With 133 Illustrations on Wood and 14 Colored Plates. 8vo, pp. 563. Philadelphia and New York: Lea Brothers & Co. 1897.

The appearance of a second edition of this comprehensive and well digested manual within a period of eighteen months after the publication of the first may be viewed as either a confirmation or a contradiction of the statement in the preface that but little attention is paid to clinical chemistry and microscopy either by hospital physicians or by those engaged in general practice. Whichever conclusion one reaches there can be no doubt that laboratory methods of diagnosis are coming more and more into vogue, as the practical attention given to them in the schools and the publication of manuals devoted to them amply indicate. In the preparation of the present volume the parasitology and bacteriology of the blood, the saliva, the feces, the urine, and the vaginal discharges have been almost entirely rewritten; new methods of chemic examination have been incorporated and old methods omitted; and careful consideration has been given to examination of the cerebro-spinal fluid and its clinical significance. Of the

subjects treated of at greatest length, 237 pages are devoted to urine, 100 pages to blood, 69 pages to gastric juice and gastric contents, 63 pages to feces, 29 pages to sputum. Other subjects discussed are the secretions of the mouth and the nose, transudates and exudates, cystic contents, cerebro spinal fluid, semen, vaginal discharges, and the secretions of the mammary glands. The illustrations are numerous, and well chosen and well executed. Everywhere throughout the work can be found evidences of original investigation, adding interest and giving authority to the opinions expressed and the statements made. The book is in every way to be cordially commended. A. A. E.

Current Literature

Sudden Death.—Heller reported a case of sudden death in a healthy child. The child, which seemingly was perfectly well, only somewhat pale, had just before its death taken a drink with much enjoyment. The nurse had for a short time left the child and found the latter dead on her return. The autopsy did not show the slightest cause to which death could be attributed. Dr. Cnopfsen mentioned that in a child which suddenly died in his practice, an immense accumulation of fecal matter was found at the autopsy. Death in these cases was due to autointoxication from the intestine—*Pediatrics*.

BOOKS RECEIVED.

A TEXT-BOOK OF PRACTICAL THERAPEUTICS. By Hobart Amory Hare, M.D. Sixth Edition. Thoroughly revised and largely rewritten. 8vo, pp. 756. Philadelphia and New York: Lea Brothers & Co., 1897.

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THE PHILADELPHIA POLYCLINIC

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PILOCARPIN IN NON-SYPHILITIC CENTRAL RETINO-CHOROIDITIS.¹

BY HOWARD F. HANSELL, M.D.

Professor of Diseases of the Eye in the Philadelphia Polyclinic; Clinical Professor of Ophthalmology,
Jefferson Medical College.

I DESIRE to bring to your notice, succinctly and briefly, by the relation of two histories, the value of hypodermic injections of pilocarpin in retino-choroidal inflammation of the foveal region and of the posterior pole of the eye, occurring in individuals otherwise apparently sound. In one case, the restoration of vision was so pronounced that I feel disposed to believe that the prognosis of this disease is not uniformly bad, and that the hopes that I have hitherto held out, namely, that the disease, under favorable auspices, may be checked, but that the loss of vision cannot be restored, may be favorably modified. In those patients, in whom the inflammation has progressed to the stage of absorption of the choroidal pigment, disappearance of the choroidal vessels and destruction of the sensitive retinal elements, the scotoma must necessarily be a permanent one, but in others, where the function of these tissues is not absolutely lost but held in abeyance by a deposit of inflammatory exudation, the morbid process may be so influenced by treatment that the perceptive tissues will again resume activity, and useful vision be restored. The efficacy of pilocarpin is, I believe, to be attributed to the inordinate activity of the lymph system induced by its presence. By depriving the peripheral vessels of a large proportion of their fluid contents, those of the internal organs meet the

deficiency, thus eliminating morbid products together with physiologic excretions. In whatsoever manner and by whatsoever channels the energy of pilocarpin is displayed, the results of its administration have surpassed my expectations, and to the list of diseases, for the treatment of which it has been recommended, may be added acute or acute exacerbations of chronic and subacute choro-retinitis. My recent experience enables me also to fully endorse Chavellereau's statements of its value in opacities of the vitreous associated with choro-retinal disease.

I do not want to be understood, however, as deducing from the unexpectedly favorable outcome in the cases cited below, the statement that the prognosis of central choro-retinal inflammation is in general other than unfavorable or that the method of therapy adopted would be equally serviceable in all cases.

CASE I. Mr. H., unmarried, aged 35, consulted me in August, 1897, for failing vision in the right eye that had commenced in the early part of July, consequent upon, he believed, unusual exposure to light. No other cause was assignable. The left eye was useless from excessive myopia and the fundus changes characteristic of that affection. He was not the subject of inherited or acquired syphilis, or of any constitutional taint, and had always been robust. The fundus showed patches of abnormal pigmentation that were probably congenital or of very early develop-

¹ Read before the Section on Ophthalmology, College of Physicians, Philadelphia, October 19, 1897.

ment, and had no determining influence on vision. In the foveal region, the normal appearances were changed into those of retino-choroiditis. There was an unusual amount and arrangement of the retinal pigment overlaid by an area of redness and haze due to retinal engorgement and edema. The optic disk presented no abnormalities other than disturbance of pigment on its borders and in its neighborhood. The periphery of the field was not limited for white or colors. V. $\frac{20}{20}$, not improved by glasses. Refraction, low myopia. He lost the power to read written or printed matter of even large characters, and had been obliged to abandon his active business pursuits. Around the fixation point, and including it, a well-marked scotoma could be outlined, although he had still perception of light over this area. He had constant photopsia both by day and night. He was admitted to the Jefferson Hospital, and subjected to the following treatment: daily hot bath of twenty minutes' duration, during which a cup of hot tea was administered. The sweating thus inaugurated was continued by $\frac{1}{8}$ grain pilocarpin hypodermically, while the body was wrapped in several blankets that were changed for dry ones, when they became wet from the perspiration. The sweat thus induced was very profuse and lasted for about three hours. Hot fluids composed the main diet. The heart's action was carefully watched during this exhausting treatment, and when it became too frequent or weak, the pilocarpin was omitted or its strength reduced, and the injection preceded by strychnia hypodermically. At the expiration of two weeks of treatment as indicated, vision had improved to $\frac{20}{20}$. After discharge from the hospital, strychnia sulfate $\frac{1}{4}$ grain t. d. was ordered. In one month, vision with the correcting glass, $-50 \text{ C} - \frac{1}{8} \text{ D}$ c. ax. 90 equalled $\frac{20}{20}$ partly. With the addition of $+2$ for the near, the patient could read the smallest type.

CASE II. Mr. R., aged 46, was referred to me in April, 1897, by Dr. W. W. Keen, on account of failure of vision in the right eye. The left eye was useless, from an old central choroï retinitis. Vision was reduced in that eye to counting fingers at one foot eccentrically. The vision of the right had commenced to deteriorate some months before consulting me, and was failing rapidly.

No history of syphilis or other constitutional taint could be obtained. Refraction—4D. Under salivation by mercury, and by the use of potassium iodid in increasing doses, the deterioration of vision was checked. In August, vision was again reduced from $\frac{20}{20}$ to $\frac{20}{40}$, and Mr. R. was unable to read small type. The ophthalmoscope showed changes similar in every respect to those of Case I. The treatment above described was instituted and carried out for one week. The vision again improved to $\frac{20}{20}$ (?), and the dark-red infiltrated choroidal border of the atrophic central patch was replaced by choroid of normal color.

A third case, still more recently treated, may be briefly referred to. A young woman was struck, July 5, 1897, in the cornea of the left eye by a flying firecracker. Vision was seriously impaired, and remained so for three months. Under the treatment of Dr. Elliott, of Sharon, Pa., to whom I am indebted for the opportunity of seeing the case, it improved to $\frac{20}{20}$. The ophthalmoscope showed a small crystal of cholesterin lodged in the yellow spot, and surrounded by a dark zone of congestion of the retina and choroid. In seven days, the congested zone had cleared up, but a trace of cholesterin remained, and vision had improved $\frac{20}{20}$ (?).

A fourth case, just discharged from the wards of the Jefferson Hospital, of extensive vitreous opacities, associated with and no doubt dependent upon a patch of retino-choroiditis just above the fovea in the right eye, was greatly benefited by the same treatment. The strength and the frequency of the pilocarpin injections were less than in Cases I and II, owing to the young woman's anemic condition.

My experience with pilocarpin in the above and all other cases, warrants my asking for the remedy, at your hands, a trial in opacities of the vitreous and choroï-retinal inflammation.

Change of Title.—At the meeting of the Trustees, held November 16th, the title of Dr. Daland's chair was changed to "Clinical Medicine." The vacant chair, recently held by Dr. Griffith (Clinical Medicine), resigned, was abolished, as was also the chair of Adjunct Professor of Bacteriology, recently held by Dr. Pease, resigned.

A CASE OF COMBINED SCLEROSIS.

BY J. H. WALLACE RHEIN, M.D.

Instructor in Neuropathology in the Philadelphia Polyclinic; Medical Electrician to Orthopedic Hospital and Infirmary for Nervous Diseases; Bacteriologist to Elwyn Training School; Chief of Clinic for Nervous Diseases, St. Agnes Hospital.

THE patient whom I shall exhibit this evening belongs to a group of cases which has been described by Rothman as "primary combined system disease." He collected from the literature and analyzed twenty-eight cases. The disease was first described by Westphal in 1877, and since then by a number of other writers, including Strümpel, Ballet, Dejerine, Charrin, and others. The disease is characterized by sclerosis of a number of the columns of the spinal cord, limited, it is claimed by some, to the several columns involved. The gray matter, in a few cases, has been diseased. Clark's columns have been found degenerated, and in a limited number there has been some change in the posterior roots. The disease is described by Gowers under the name of ataxic paraplegia. It has been claimed by some that the morbid process does not extend beyond the limits of the tracts which are affected; but this is not proven in quite a number of cases, undoubtedly of this nature, and, as Gowers claims, while the disease is systemic in the posterior columns, it is not truly so in the remaining tracts of the cord.

The patient was a man 51 years of age, and a baker by occupation since 14 years of age. He applied to the St. Agnes Hospital clinic, complaining of "weakness in his legs" and "great unsteadiness in walking," especially noticeable in the dark. The trouble began, he claimed, about nine months ago (July, 1895), after an attack of heat exhaustion. While working in a room, the air of which was hot and moist, he suddenly became unconscious. He was taken to the St. Agnes Hospital, and was under the care of Dr. J. K. Mitchell. He remained totally comatose for two days. He then became semi-conscious for a few days, when he complained of headache, vertigo, and some hallucination of sight. There was every sign of meningitis, including fever. At the end of three weeks he had sufficiently recovered to be removed to his home in a carriage. On attempting to walk at that time, it was found that he was barely able to support himself on his feet, and it

was utterly impossible for him to walk. He rapidly, however, gained sufficient power to stand and to walk with the aid of a cane. His condition then remained stationary for six months, at the end of which time he applied for relief at the clinic. Upon close questioning it was discovered that some six months before the attack of heat exhaustion, he had noticed great unsteadiness in walking upon drinking one or two glasses of beer, but beyond this he had noticed no symptoms of sufficient severity to be noted. There is nothing in his family history bearing upon the case, except that a brother, ten years ago, developed symptoms similar to those of which the patient complained. Under treatment the brother improved greatly, and was able to return to his work. The patient's early habits were good, except for alcohol, which he used regularly in the form of whiskey. He smoked two packages of tobacco weekly. Specific disease is denied. In 1888, six weeks after a fall upon the shoulder, an abscess developed, which was operated upon and a large amount of pus evacuated; good recovery ensued. In other respects the previous history is negative.

His present condition is as follows: The station is greatly ataxic. With his feet close together, and eyes closed, he would surely fall if not supported; even with the eyes open the sway is considerable. The gait is ataxic, so much so that he must constantly use a cane to prevent falling. The knee jerks are normal, the left perhaps being a little larger than the right. There is no clonus. The arm jerks are normal. The chin jerks cannot be elicited. There is no evidence anywhere of atrophic change. The sensory condition to heat, pain, or touch is underanged. The sexual desire is markedly diminished. Only recently has he complained of stabbing pains in the left calf, and a sensation of pins and needles in that locality. His general condition is fairly good. The lungs are normal. There is a systolic murmur at the apex which gives, however, no symptoms, and there is slight arterial change.

The case is especially interesting on ac-

count of the acute onset of the symptoms. There is little doubt that the disease had begun before the attack of meningitis, and was of slow progress. The meningeal in-

flammation, which doubtless extended to the meninges of the cord, hurried the process and thus gave acute symptoms.

Society Proceedings

NEW YORK ACADEMY OF MEDICINE.

Section in Orthopedic Surgery.

Meeting of October 15, 1897.

Abstract of a paper on

CONGENITAL ABSENCE OF THE RADIUS,

read by DR. H. L. TAYLOR. The absence or imperfect development of the radius in the new-born causes the appearance of club-hand from dislocation of the carpus to the radial side.

CASE I.—Girl, 5 weeks old. Absence of the radii. Hand at right angles with forearm. Genuvarum. Mechanical treatment. The figure shows the absence of the radius and the ulna shortened, thickened and bent, also the improved position of the hand at 15 months.

CASE II.—Girl, 2 weeks old. Absence of



the right radius and both thumbs with their metacarpal bones. The deformity of the right hand was extreme. The patient lived but a few months.

CASE III.—Boy, 5 weeks old. Slight double radial club-hand with the radii abnormally small. The hands were kept in good position by leather splints

CASE IV.—Girl, 2½ years old. Absent ulna and the fourth and fifth digits with their metacarpal bones. Radius thickened and bent toward the ulnar side. The hand usually turns toward the ulnar side, but is sometimes held straight. The elbow has abnormal lateral mobility and hyper-extension, as might be expected from absence of the ulna.

Children with deficiencies of this kind are usually premature or still-born. If alive, they seldom live many weeks. There are about 200 recorded cases of absent fibula and 100 of absent radius; but the deficiency shown in case IV, absence of the ulna, is believed to be very rare. The dimples, furrows and scar like marks, vestiges perhaps of separated adhesions, support the theory that these defects are caused by the pressure of a contracted amnion. As rotation of the fetal limbs is said to begin about the fifth week, if the amnion exerts pressure from the fifth to the eighth week, the radius and fibula may be blighted. If, on the other hand, the contraction takes place before the fifth week and before the rotation of the limbs, the ulna and tibia will suffer. Operations, if performed, should be preceded by mechanical treatment. Contracted structures may be divided. Osteotomy may be followed by over-correction and the ulna may in various ways be attached to the carpus in an improved position.

DR. R. H. SAYRE said that he had treated a patient affected with double congenital absence of the radius by manipulation, stretching and retention in plaster of Paris. The

hands had been brought into a fairly normal position, but the child died of cholera infantum when ten months old. In another case the ulna was so small that it hardly seemed feasible to split it for the reception of the carpus, as has been done in a reported case. He therefore fixed the ulna in a gap made in the carpus.

DR. A. H. PHELPS said we could hardly use the term club-hand in speaking of congenital absence of the radius.

DR. A. B. JUDSON said that there seemed to be no affection of the hand corresponding to congenital club-foot. So-called club hand was caused by deficiencies of the skeleton, by injuries and diseases of the bones, by cicatricial contraction or by paralytic affections. There were also cases of club-foot originating in all of these ways, but what we know as congenital club-foot is caused by factors which are apparently not operative in the upper extremity.

A CASE OF TRAUMATIC CLUB-HAND.

DR. TAYLOR exhibited a girl, 8 years old, a portion of whose radius had been resected for necrosis. The radius was, in consequence, much shorter than the ulna and the result was that the hand was thrown toward the radial side and had the appearance of a club-hand.

DR. PHELPS said that in a case of club-hand thus acquired, he would shorten the bone instead of cutting the tendons. Tendons, when divided in their sheaths, are apt to become adherent, while resection of the longer bone would in suitable cases bring the hand to a normal position.

TRAUMATIC CLUB-FOOT.

DR. JUDSON was reminded of a patient whose tibia had been shortened for disease of the bone. As the boy grew the fibula projected to such a degree that the patient could not walk. In such cases another operation was necessary to shorten the unaffected bone.

DR. R. WHITMAN was reminded of a man whose tibia had been shortened by an operation when he was 13 years old. The result was that when recently seen the leg was 5 inches short and the foot had been forced into extreme varus by the relative overgrowth of

the fibula. Bone reproduced to fill an interval left after resection, did not grow. Final results after such operations, performed in childhood, were usually unsatisfactory.

DR. R. H. SAYRE cited a case which showed that reproduced bone did not cease to grow. The patient had been exhibited to this Section by Dr. L. A. Sayre. Four inches of the neck and head of the femur had been removed, and when the boy was 12 years old there was only about $\frac{1}{4}$ inch of shortening. In some of Dr. J. R. Wood's resections of the jaw, the lower maxilla had been reproduced and had grown with the rest of the body.

DR. WHITMAN said he referred to parallel bones of the extremities. Deformity was almost inevitable when a portion of one bone only is removed.

DR. PHELPS said that new bone had feeble circulation, grew less rapidly than normal bone and became very hard, as was shown when one of two parallel long bones was reproduced.

DR. R. H. SAYRE said that the vicinity of a nutrient artery would probably influence the growth of new bone.

A CASE OF HELPLESS CLUB FOOT. FROM DEFICIENCY OF THE SKELETON.

DR. R. H. SAYRE described a case in which double club-foot was associated with congenital deficiency of both of the bones of the leg, in a girl 12 years old. There was a bent and rudimentary fibula and a tibia only an inch or so long which stuck out like a little sprout under the skin. The foot was very much twisted and hung with a helpless flail joint against the leg. Amputation at the knee was done.

CLUB FOOT CAUSED BY ABSENCE OF THE FIBULA.

DR. WHITMAN exhibited a child, 8 months old, in whom congenital absence of the fibula had caused talipes equino-valgus and anterior bowing of the tibia. The equinus had been extreme, but division of the tendo-Achillis and the application of a brace had brought the foot to a right angle.

DR. TAYLOR had seen eight or ten patients affected with congenital absence of the fibula. He said that in such a case it was very difficult to remove the lateral deformity by an

operation. As there was no malleolus to support the foot it would return to its former position. Another interesting point was that the shortening found in infancy, in congenital absence of the fibula, would greatly increase with the growth of the child. In an adult, whose measurements he had taken for some years, there is a shortening of five or six inches. In a boy of 12 years, the shortening was the same, and increasing. This progressive shortening took place in the forearm as it did in the leg.

Current Literature

REPORT ON OBSTETRICS.

By E. P. DAVIS, M.D., AND W. H. WELLS, M.D.

The Treatment of Placenta Prævia in Pinard's Clinic.—Wetti. (*Corresp. Blatt. für Schwei. Aerzte*, 16, 1896.) The detachment of the placenta is due to the traction of the ovisac. The pains press the presenting part upon the ovisac, and when the placenta is normally situated, the tension is equalized by the elasticity of the whole sac, but when it is situated too low down, elasticity cannot come into play, and the sac ruptures, or the placenta is detached. To relieve the tension of the sac the membranes should be ruptured.

(1) During Pregnancy: The position of the fetus should, if necessary, be converted into a head presentation by external version. Repeated hemorrhage with rise of the pulse-rate calls for rupture of the membranes. Champetier de Ribes' bag is introduced with forceps, and when it is expelled, the labor is if possible left to nature, otherwise, terminated by forceps or version.

(2) During Labor: The position may sometimes be improved; in case of serious hemorrhage the membranes should be ruptured, if the head engages the bleeding stops, if it does not the bag is inserted, and the dilatation of the os expected.

(3) In the Third Stage: If hemorrhage is going on, or if much blood has been lost and the pulse becomes quick, the placenta should be detached and hot water injected, alcohol administered and the subcutaneous or intravenous injections of solution of salt (a tablespoonful to the like of boiled water) should be employed.

This treatment gave a maternal mortality of but 2.6 per cent.

Treatment of Placenta Prævia by Champetier de Ribes' Bag.—Blackes. (Transactions of Obstetrical Society of London, April 7, 1897.) This method is recommended in the more severe cases of hemorrhage from placenta prævia, in place of version; by the introduction of the bag into the amniotic cavity after rupture of the membranes. Used in this manner the bag acts both as a tampon in arresting the hemorrhage, by pressing the separated portion of the placenta firmly against the uterine wall and also as a dilator of the cervical canal and a very powerful stimulus to uterine contractions. This treatment appears to act advantageously in quickly arresting hemorrhage, and at the same time reducing the heavy fetal mortality which usually occurs after the performance of version. The advantages claimed for its use are: (1) Ease and facility of introduction. (2) The certain arrest of hemorrhage. (3) Any further hemorrhage is controllable by traction upon the bag. (4) The bag, and not the child's body, dilates the cervical canal. (5) The ease of delivery after expulsion of the bag. (6) The fact that the bag is a very powerful stimulus to uterine action. (7) The lessened fetal mortality as compared with the results obtained after version.

A New Incision in the Cæsarian Operation.—Heinrich Fritsch (*Centralblatt. für Gynekologie*, May 22, 1897). The incision advocated is a transverse one, above the fundus, its advantages being the ease with which the fetus may be extracted, the smallness of the incision, and the freedom of the oviducts from injury. The abdominal incision can be made higher up in the abdomen, the umbilicus occupying its center. This lessens the danger of subsequent hernia, affords a better opportunity for the assistant to compress the uterus, as it is undisturbed in position, the blood and fluids are less apt to reach the abdominal cavity. The wound contracts well, due to the contraction of the fundus. The incision, about eight centimeters long, requires but seven sutures, closely applied; their introduction causes the hemorrhage to cease, as they ligate the vessels on account of the transverse incision at the fundus, being parallel to the vessels. A case is reported by the author with a very favorable result.

THE PHILADELPHIA POLYCLINIC

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PHILADELPHIA, NOVEMBER 20, 1897

THE FALL IN PROFESSIONAL POTENTIAL.

WE have been led to do some very serious thinking by noting that the current number of an influential medical weekly has three editorials which evince a slump—if we may use such a term—in the popular estimation of the medical profession. One of these editorials informs us that the medical officers of the U. S. Navy have given up, as hopeless, their fight for rank as ward-room officers, and will accept the inferior status now assigned to them; another informs us that the supreme court of a western State has decided that a doctor can be compelled to testify as an expert without any compensation other than that of an ordinary witness (about \$1.00 per day and mileage—if you get it); and the third records a complaint made by a veterinary journal that the medical experts in the Luetgert trial were not competent witnesses as to the nature of the bones found in the vat. We are informed, in passing, that mere “human anatomists” are not qualified to pass judgment on points of comparative anatomy, and if we understand the term “human anatomists” to mean those who have studied human anatomy only, the criticism is probably just.

We have said above that this three-fold

arraignment on the part of a journal which has never been backward in efforts to uphold the rights of doctors, has set us to thinking. We have been inclined to ask, in the language of Artemus Ward, “Why is this thus?”

The laughing and crying philosophers are always with us. It is not necessary for us to assume that the end of professional honor is at hand, but it is worth while to ask ourselves whether as much is being done for the support of the professional character as should be done.

We hold that the medical school is a large factor in the shaping of professional character. We can accept the dictum of Herbert Spencer that education does not form character, but schools and colleges are more than mere educators in facts. One of the most powerful influences upon the mind is that of example, and young men and young women enter college at an age when the effect of example is very strong. Does it not seem, therefore, that some effort should be made to lift the medical college life out of the roughness and carelessness, yes, even vice and filth, which now infect it? If the doctor is to command respect, it must be largely because he is a gentleman in the better sense of that word. It will be a long while before he will be able to command the homage of the world by reason of knowledge alone, unless we are nearer than we have reason to suppose to the discovery of the great secrets of pathology and therapeutics.

What do we find when we enter the halls of the average medical college? Uncleanliness in all its phases. The floor of the lecture-room is slippery with tobacco juice, the atmosphere of the halls reeks with the odor of tobacco smoke, the conversation of the students is loud and often coarse. Worse than all, gray-haired professors do not hesitate to relate indecent stories to men young enough to be their grandchildren. These

conditions are not all permitted because they are unnoticed by, or acceptable to the college authorities. No doubt, many medical teachers would wish for better surroundings, but dare not oppose the existing state of affairs, for fear that some disgruntled students would go elsewhere and the college would lose fees. Woe betide the professor whose standard of admission and conduct cuts down the college class.

Why should not the student be taught by good example the manners of a gentleman, and if this is not sufficient, by strict discipline be made to exhibit at least the outward show of such manners.

"This monster, custom, . . .
 . . . is angel yet in this,
 That to the use of actions fair and good,
 He likewise gives a frock or livery
 That aptly is put on."

Smoking and spitting should be absolutely prevented in the college building. Noisy demonstrations should be reserved for the out-door exercises on the athletic field, indecency of speech or action should be discouraged and especially a good example set by the older members of the corps of teachers. Moreover, some real significance should be given to the requirement of good moral character which is printed in so many college announcements, but which seems there for show rather than use.

We do not entertain the hope that these reforms will cause the Navy Department to alter its rulings, or secure a reversal of the decisions of the courts, or lead veterinary authorities to accept doctors as experts in the delicate question of distinguishing between the bones of a woman and those of a hog; but we do believe that a material advancement of the standing of the profession would result from a better life at medical schools, and that something more is needed than the extension of the course of instruction and the increase of entrance requirements. H. L.

Editorial Note

Cases of Paralysis from Pressure are not rare. We not infrequently see wrist drop from pressure of the head on the musculospiral nerve during sleep. More uncommon is foot drop from pressure on the external popliteal nerve, as is sometimes seen when a person remains in a kneeling position for several hours. Still more rare is paralysis of the deltoid muscle from faulty position. Raymond presented a case of isolated bilateral paralysis of the deltoid muscle in his clinic lectures in 1894 and 1895 at the Salpêtrière. The paralysis developed after the man had slept with his arms behind his head. It is probably the only case of such paralysis on record. Raymond concluded from investigations on cadavers that the circumflex nerve is less sinuous in some persons than in others, and that where it is unusually straight it must suffer from any prolonged stretching. In his case sensation was affected in the distribution of the cutaneous branches of the circumflex nerves.

A woman recently came to Dr. Spiller's clinic, who presented the bad effects of sleeping with her arms behind her head. Every morning on waking she found her arms in this position, and she had considerable pain quite closely limited to the distribution of both circumflex nerves. She experienced great difficulty also in bringing her arms down to the sides of her body, and frequently needed assistance. She did not attribute this paresis to the pain in the shoulders. The pain was regarded as a sign of warning from the circumflex nerves, and she was told of the possibility of paralysis of the deltoid muscles if she persisted in sleeping with her limbs in this position. W. G. S.

The best investment of a dollar a year is to subscribe for THE PHILADELPHIA POLYCLINIC.

In the Clinics

IN several cases of *disease of the muscular structure of the heart* applying at Dr. Cohen's clinic recently, the system of *gently resisted exercises* known as the "Schott movements," was prescribed, and an interesting demonstration of the method was given by Dr. C. C. West. These movements dilate the peripheral vessels, thus enabling the heart to empty its chambers more readily. Through reduction of the back pressure, the circulation through the lungs is facilitated, and the right heart more thoroughly emptied, which in turn assists in the onward flow through the arteries. Thus a beneficial circle is substituted for the vicious circle leading to dilatation of the heart, pulmonary engorgement and dropsies, and in consequence these conditions are relieved and after a time practically removed.

* * *

IN speaking of the *hasty diagnosis of senile cataract*, Dr. Hansell called the attention of the class to the reflection of light by transparent lenses in elderly persons and particularly in those belonging to the African races. The grey color of the pupil is often misleading and may influence the physician to express his opinion that cataract is present when further examination with oblique light, and with the ophthalmoscope will at once convince him that his diagnosis is erroneous.

* *

ON the basis that *attacks of acute gastro-intestinal indigestion in infants* are caused by fermentation of undigested food, generally milk, those connected with the obstetric clinic have found that mercurous chlorid (calomel), in doses of $\frac{1}{20}$ to $\frac{1}{10}$ of a grain, given every hour until a grain is taken, has given most excellent results. Creosote has also been highly recommended, and seems to offer considerable possibilities for this purpose. All milk diet should be stopped for at least twelve hours, after which beef juice or peptone preparations may be given until the irritation has subsided.

DR. WELLS, in his demonstrations on the *care of women during pregnancy*, dwelt at length on the necessity of watching the condition of patients during this time. It is of special importance that the patient's powers of excretion should be kept in the best possible condition. The urine should be examined at least once a week after the fourth month, and, in case any deficiency in the excretion of solids appear, proper treatment should be resorted to at once. When there is much headache, the eyes should be examined, and abnormalities of vision corrected. As a general rule, however, this most unpleasant symptom is quickly relieved by proper diet, baths, and free purgation. No headache occurring in a pregnant woman, is too insignificant to demand attention of her attending physician.

Selection

PRIZE COMPETITIONS AS AN ADVERTISEMENT.

IN the course of an able lecture on Strontium Salts Dr. Leon L. Solomon says: "Recently various shrewd manufacturing chemists have hit upon a very novel means of stimulating and persuading the profession to do a like service for them, which might ultimately advertise their preparations. I refer to the scheme of offering cash premiums and other prizes for the best essay, which shall be written, setting forth the value of some 'wonderful specific' or 'more wonderful panacea.' The purpose of such an undertaking is so diametrically opposed to the good interests and loftier aspirations of medicine, and of the medical profession, that we might have supposed only charlatans and advertising quacks would have given support thereto. No little pain and remorse has been caused, therefore, when it became generally known that some of our so-called best and brainiest men have lent a helping hand and have actually engaged in these competitions and contests—sad indeed is it, when 'brains' and 'cunning' join hands, hearts, and pocketbooks for a common cause, destined to do so much harm. Let us hope that the rank and file of the profession will frown down on this evil, until its existence and very name shall be a thing of the past. The question might be asked just here: Do we need a new and revised Code of Ethics to meet these constantly multiplying exigencies? Probably so. The times are now different from those of the birth of the old code. However, I am inclined to accept the version of that great and good old man, Dr. D. W. Yandell, who used to say to his classes of medical students, when speaking of the code, 'Why, gentlemen, what need have we for codes of ethics? A gentleman never needs a code of ethics to govern his actions, and a d— rascal will never live up to a code.'"—*The American Therapist*, August, 1897.

News Item

FREE LABORATORY COURSES AT THE POLYCLINIC HOSPITAL, Lombard Street above 18th Street, Philadelphia, November 15th to December 11th, 1897. A series of Laboratory Demonstrations, free to Physicians, will be given as follows:

Monday, Nov. 22d, 29th, and Dec. 6th, 11 A.M., X Rays Diagnosis, Dr. Haines; 4.30 P.M., Operative Surgery, Prof. M. J. Stern.

Tuesday, Nov. 23d, 30th, and Dec. 7th, 2 P.M., Gastric Examinations, Prof. D. D. Stewart; 4 P.M., Operations on the Eye, Prof. G. E. de Schweinitz.

Wednesday, Nov. 24th, Dec. 1st and 8th, 12.30 P.M., Clinical Microscopy, Adjunct Prof. A. O. J. Kelly.

Thursday, Nov. 25th, Dec. 2d and 9th, 10 A.M., Operative Gynecology, Adjunct Prof. F. W. Talley.

Friday, Nov. 26th, Dec. 3d and 10th, 4 P.M., Surgical Anatomy, Prof. A. Hewson.

New Publication

ABOUT CHILDREN. Six Lectures to Nurses in the Training School of the Cleveland General Hospital. By Samuel W. Kelley, M.D. Medical Gazette Publishing Co. 1897.

This is an admirable little brochure about children; clear, practical, and above all succinct, furnishing not only suitable information to the nurses, for whom it was de-

signed, but well fitted to instruct medical students. It offers not too much for nurses who are the better for outline sketches in anatomy and physiology, along with a clear picture of the more obvious pathological findings and a fair measure of therapeutic suggestions, the whys and wherefores of physicians' directions, but also affords a sound outline of suggestions to any one genuinely interested in children and their ailments. Not only so, but the book is well adapted to the reading mother, who will therein find the kind of instruction useful in enabling her to learn her duties to the medical adviser while acting as sick nurse to her own little ones. She would acquire an equally valuable item of knowledge, namely, to appreciate the importance of entrusting the care of her treasures, when really ill, to a thoroughly instructed nurse, who alone can supplement and effectively carry out the directions given for relief. The subjects are divided most practically, and the last chapter is an ample one, on the care and modification of milk and other details on feeding and management. The style is too stenographic and loose to escape criticism, but the book will bear revision.

J. M. T.



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THE PHILADELPHIA POLYCLINIC

VOL. VI—No. 48

NOVEMBER 27, 1897

THE DOSE OF THE ANTITOXIN OF DIPHTHERIA.

BY J. MADISON TAYLOR, A.B., M.D.

Professor of Diseases of Children in the Philadelphia Polyclinic.

THE experience of those who have most largely and carefully used the antitoxin or serum therapy in diphtheria leads them to adopt certain clearly defined and simple rules for its administration. And first, since there are no dangerous and few and rare disagreeable after-effects of its injection, and since it is a rule established by all observers that the best results follow any sort of treatment in this disease when begun as early as possible, hence it is wisest to give the antitoxin at once in a case which excites suspicion. No harm can be feared and much valuable time is gained by giving without delay, in acute anginas even remotely simulating diphtheria, a full curative dose of antitoxin.

Again, the doses formerly given often failed of utility because totally inadequate and not repeated frequently enough. This we have had occasion to abundantly verify since we, along with numberless others, have learned practically to place increasing confidence in the remedy and decreasing fears of possible injurious effects. Not only is this true for curative but for immunizing doses. The dosage is given in what is termed antitoxic units, and this should be the method without regard to the quantity of the fluid. Immunizing doses should not be less than 100 units and 200 to 300 units is enough (according to our present lights) for any case and is operative for about one month. Dr. F. G.

Morrill finally determines the limit to be about three weeks.

It was at first feared to use immunizing doses of antitoxin in any but the moderately robust and vigorous, but Dr. F. Gordon Morrill's experience in the Boston Children's Hospital disproved this. There the disease became endemic and immunization was practiced on all but the feebleness acutely ill or in recent operations, etc. And still cases broke out occasionally. When the rule was adopted to give antitoxin to each and every case the disease utterly ceased and no harm whatever was caused by the remedy in several thousand injections.

Behring's rule for immunization is 100 units to a healthy individual of about 120 pounds weight; if the person be, however, constantly exposed to the disease this is increased or repeated till, as in a case of Dr. Rosenthal's, 600 units were given to a poor pregnant mother in charge of a child suffering from diphtheria, and she subsequently was confined in that same room without ill effects. The dose of 100 or 200 units may be repeated once a week to those continually exposed, but this is not necessary, though once in two weeks is safer than to wait till the end of a month.

The curative dose of antitoxin for a child from two to five years old, with suspicious symptoms, is about 1,000 units. If the disease is well marked, use 2,000. If at the end

of six hours the case is in the same condition repeat the dose of 2,000; if it is worse, use a dose of 3,000; if much better, wait till twelve hours have passed, then if in the same condition, repeat 2,000, or if ever so little worse, 3,000 or 4,000 units at a dose. Then wait six or twelve hours, and repeat again if the same conditions maintain—at six hours, 3,000, if worse, 4,000; if better, wait till twelve hours elapse, and give 3,000 or 4,000 units, making the third dose in a favorable case, or the fifth dose in an increasingly ill case. These three doses, or at most five, will usually be sufficient.

When the symptoms grow steadily worse the dose may be repeated every six hours, increasing by 1,000 at each injection, thus—

2,000 units in six hours; 3,000, in six hours more (total, twelve hours); 4,000 in six hours more (total, eighteen hours); 5,000 in six hours more (total, twenty four hours), 6,000 units at this last dose—continuing to thus increase if necessary.

Rosenthal calls attention to a sign, which he regards as pathognomonic of improvement, which he describes as a blood red line surrounding the diphtheritic patch in the throat, showing a demarkation between the diseased and healthy areas. The effect of the serum is to lower the temperature, hence, if after the first dose this still keeps high, the dose may be repeated in six hours, or all the more promptly and increasingly.

PTOMAIN POISONING.

BY MAURICE A. BUNCE, M.D.

Instructor in Clinical Medicine in the Philadelphia Polyclinic.

THE alkaloids elaborated in the process of putrefaction of organic matter are the result of germ activity. Many such bodies are of a definite composition, and are of the azotic type. Other of these products are classified according to their physiologic action, or by their yielding phenomena, similar to their mineral or vegetable prototype on the addition of certain reagents, and hence called atropin or morphin-like substances. Others, again, have been grossly classified according to the pathologic phenomena, which they give rise to, as typhoid, tetanic, choleraic. The case cited below was choleraic in type, or somewhat like the chemic analogue—antimony—producing the symptoms usually ascribed to a toxic dose of this mineral, barring pain and melena.

J. B., male, æt. 18 years, on September 15, 1897, ate the remainder of a box of sardines, which had been exposed in the origi-

nal tin package to the air for a period of twenty-four hours. Eight hours later, the following prodromes manifested themselves: headache, nausea, aversion for food; late in the afternoon (four to six hours later), vomiting and purging set in, increasing in frequency and in severity; the bowel flux was serous and projectile, unattended with tormina. Painful cramps in the calves of both legs recurred at intervals of half an hour. To inspection the skin surface was moist; pulse 120, soft and compressible; abdomen flat, tympanitic over region of the stomach; pupils dilated. The following was administered every four hours: Bismuth salicylate, 8 grains; codein sulfate, $\frac{1}{8}$ grain; salol, 3 grains. Thirst was relieved by sipping warm water. Instructions were given to administer an oil purge if the gastro-intestinal symptoms did not ameliorate with the above medication. There was an immediate response to treatment, being in part due, no doubt, to

the toxic materials having been eliminated by the profuse serous discharges. The following twenty-four hours, a liquid diet, with small doses of creosote as a sedative gastrointestinal antiseptic, were administered.

Selection

INTERNAL MEDICINE AS A VOCATION.

BY WM. OSLER, M.D.

It is high time we had our young Lydgate started.¹ If he has shown any signs of *nosus* during his student and hospital days a dispensary assistantship should be available; anything should be acceptable which brings him into contact with patients. By all means, if possible, let him be a pluralist, and—as he values his future life—let him not get early entangled in the meshes of specialism. Once established as a clinical assistant he can begin his education, and nowadays this is a very complicated matter. There are three lines of work which he may follow, all of the most intense interest, all of the greatest value to him—chemistry, physiology, and morbid anatomy. Professional chemists look askance at physiological chemistry, and physiological chemists criticise pretty sharply the work of some clinical chemists, but there can be no doubt of the value to the physician of a very thorough training in methods and ways of organic chemistry. We sorely want, in this country, men of this line of training, and the outlook for them has never before been so bright. If at the start he has not had a good chemical training, the other lines should be more closely followed.

Physiology, which for him will mean very largely experimental therapeutics and experimental pathology, will open a wider view and render possible a deeper grasp of the problems of disease. To Traube and men of his stamp, the physiological clinicians, this generation owes much more than to the chemical or *post-mortem*-room group. The training is more difficult to get, and nowadays when physiology is cultivated as a specialty few physicians will graduate into clinical medicine directly from the laboratory. On the other hand, the opportunities for work are now more numerous, and the training which a young fellow gets in a laboratory controlled by a pure physiologist will help to give that scientific impress, which is only enduring when early received. A thorough chemical training and a complete equipment in methods of experimental research are less often met with in the clinical physician than a good practical knowledge of morbid anatomy, and, if our prospective consultant has to limit his work, chemistry and physiology should yield to the claims of the dead-house. In this dry-bread period he should see autopsies daily, if possible. Successful knowledge of the infinite variations of disease can only be obtained by a prolonged study of

morbid anatomy. Of special value in training the physician in diagnosis, it also enables him to correct his mistakes, and, if he reads its lessons aright, it may serve to keep him humble.

This is, of course, a very full program, but in ten years a bright man with what Sydenham calls "the ancient and serious diligence of Hippocrates" will pick up a very fair education, and will be fit to pass from the dispensary to the wards. If he cannot go abroad after his hospital term, let it be an incentive to save money, and with the first \$600 let him take a summer semester in Germany, working quietly at one of the smaller places. Another year spend three months or longer in Paris. Lay schemes in advance, and it is surprising how often the circumstances fit in with them. How shall he live meanwhile? On crumbs—on pickings obtained from men in the cakes-and-ale stage (who always can put paying work into the hands of young men), and on fees from classes, journal work, private instruction, and from work in the schools. Any sort of medical practice should be taken, but with caution—too much of it early may prove a good man's ruin. He cannot expect to do more than just eke out a living. He must put his emotions on ice; there must be no "Amaryllis in the shade," and he must beware the tangles of "Neara's hair." Success during the first ten years means endurance and perseverance; all things come to him who has learned to labor and wait, who bides his time "ohne Hast, aber ohne Rast," whose talent develops "in der Stille," in the quiet fruitful years of unselfish devoted work. A few words in addition about this dry-bread decade. He should stick closely to the dispensaries. A first-class reputation may be built up in them. Bryon Bramwell's "Atlas of Medicine" largely represents his work while an assistant physician to the Royal Infirmary, Edinburgh. Many of the best-known men in London serve ten, fifteen, or even twenty years in the out-patient departments before getting wards. Lauder Brunton has only recently obtained his full physicianship in St. Bartholomew's after a service of more than twenty years in the out-patient department. During this period let him not lose the substance of ultimate success in grasping at the shadow of present opportunity. Time is now his money, and he must not barter away too much of it in profitless work—profitless so far as his education is concerned, though it may mean ready cash. Too many quiz classes or too much journal work has ruined many a promising clinical physician. While the Pythagorean silence of nearly seven years, which the great Louis followed (and broke to burst into a full-blown reputation) cannot be enjoined, the young physician should be careful what and how he writes. Let him take heed to his education, and his reputation will take care of itself, and in a development under the guidance of seniors he will find plenty of material for papers before medical societies and for publication in scientific journals.

I would like to add here a few words on the question of clinical instruction, as with the great prospective increase of it in our schools there will be many chances of employment for young physicians who wish to follow medicine proper as a vocation. To-day this serious problem confronts the professors

¹ This well-known character in George Eliot's "Middlemarch" may be studied with advantage by the physician; one of the most important lessons to be gathered from it is—marry the right woman!

in many of our schools—how to teach practical medicine to the large classes; how to give them protracted and systematic ward instruction? I know of no teacher in the country who controls enough clinical material for the instruction of classes of say 200 men during the third and fourth years. It seems to me there are two plans open to the schools: The first is to utilize dispensaries for clinical instruction much more than at present is the rule. For this purpose a teaching-room for a class of twenty-five or thirty students immediately adjoining the dispensary is essential. For instruction in physical diagnosis, for the objective teaching of disease, and for the instruction of students in the use of their senses, such an arrangement is invaluable; and there are hundreds of dispensaries in which this plan is feasible, and in which the material now is not properly worked up because of the lack of this very stimulus. In the second place I feel sure, that ultimately, we shall develop a system of extramural teaching similar to that which has been so successful in Edinburgh; and this will give employment to a large number of the younger men. At any large university school of medicine there might be four or five extramural teachers of medicine, selected from men who could prove that they were fully qualified to teach and that they had a sufficient number of beds at their command, with proper equipment for clinical work. At Edinburgh there are eight extramural teachers of medicine whose courses qualify the student to present himself for examination either before the Royal Colleges or the University. If we ever are to give our third and fourth year students protracted and complete courses in physical diagnosis and clinical medicine, extending throughout the session, and not in classes of a brief period of six week's duration, I am confident that the number of men engaged in teaching must be greatly increased.

Ten years' hard work tells with colleagues and friends in the profession, and with enlarged clinical facilities the physician enters upon the second, or bread-and-butter period. This, to most men, is the great trial, since the risks are greater, and many now drop out of the race, wearied at the length of the way, and drift into specialism or general practice. The physician develops more slowly than the surgeon, and success comes later. There are surgeons at forty years in full practice and at the very top of the wave, a time at which the physician is only preparing to reap the harvest of years of patient toil. The surgeon must have hands, and better, young hands. He should have a head, too, but this does not seem so essential to success, and he cannot have an old head with young hands. At the end of twenty years, when about forty-five, our Lydgate should have a first-class reputation in the profession, and a large circle of friends and students. He will probably have precious little capital in the bank, but a very large accumulation of interest-bearing funds in his brain-pan. He has gathered a stock of special knowledge which his friends in the profession appreciate, and they begin to seek his counsel in doubtful cases, and gradually learn to lean upon him in times of trial. He may awake some day, perhaps quite suddenly, to find that twenty years of quiet work, done for the love of it, has a very solid value.—*Medical News*, Nov. 20th.

Current Literature

REPORT ON SURGERY.

BY FRANCIS T. STEWART, M.D.

Gastric Ulcers perforate in 6 per cent. of all cases, and the proportion of perforations is greater in females. Broadbent has collected thirty-one cases on the anterior wall of the stomach, fifteen at the lesser curvature, and three on the posterior surface. Anterior perforations more than one and one-half inches from the lesser curvature almost invariably produce general peritonitis, while those nearer the lesser curvature are prone to cause a subphrenic abscess, the adhesions between the great omentum and the belly wall localizing the inflammation. The peritonitis from a posterior perforation is precluded from the general cavity by the closure of the foramen of Winslow. Sometimes the ulcer becomes agglutinated to a neighboring organ and erodes a sinus into its tissues.

The symptoms consist of intense pain and shock, followed by reaction and peritonitis, which merge into a typhoid condition and death. The liver dullness is supplanted by tympany and, if an abscess form, bulging with displacement of the thoracic viscera may ensue. In the latter case the patient may live a fortnight, dying finally of sapremia, gangrene of the lung, or septic empyema. The *bruit d'airain* (coin sound) is heard over the abscess, which is tympanitic on percussion. Perforation on the posterior wall is accompanied by continued vomiting of pus, due to the patency of the ulcer from stretching of the stomach-wall by the abscess. Ulcers near the pylorus may cause a right subphrenic abscess.

If a subphrenic abscess is seen after the second day, the treatment consists of an incision along the rib margin and drainage; the ulcer, which has probably closed, is not to be searched for. If a case of perforation is seen before the second day, a median incision is made, the ulcer sewn shut, and the belly thoroughly cleaned.—*British Med. Jour.*, Oct. 30, 1897.

Perforation of the Pericardium by a Gastric Ulcer.—Fenwick's patient was a man 57 years old, who was suddenly taken ill after a meal, and succumbed in a few minutes. A necropsy revealed a sinus leading from a gastric ulcer on the lesser curvature, to the

pericardium which contained several ounces of liquid food.—*Lancet*, August 14, 1897. [Finney, *British Med. Journal*, June 12, 1886, describes a case in which the sinus from a gastric ulcer penetrated the left cardiac ventricle.—F. T. S.]

A New Incision for Appendicitis.—Visher reaches the appendix by an incision one inch above and parallel to the iliac crest, from the edge of the external oblique to a point just above the anterior superior spine of the ilium. The muscles, which are better developed here, are separated in the direction of their fibres, and the belly opened. The advantages claimed are: the impossibility of hernia, because of the wound's position; the most dependent point for drainage; and, the facility with which the appendix is found. The greatest drawback is the extreme depth of the wound.—*Annals of Surgery*, Nov., 1897.

Appendicitis in Females.—Richelot speaks of the difficulty of differentiating appendicitis from salpingitis, and reports six cases, in which the diagnosis was made only after opening the abdomen. If the tumor be situated high in the pelvis, the left side being normal, one should suspect appendicitis, and if the hymen be intact, salpingitis is excluded.—*La Gynecologie*, June, 1897.

[Spasm of the right belly wall is prominent in appendicitis, and the pain starts at the umbilicus, and finally localizes in the right iliac fossa; in salpingitis, the pain shoots down the corresponding thigh, and the disease is usually bilateral. The co existence of the two maladies must not be forgotten, as McCosh, of New York, found five cases of pyosalpingitis as a complication of fifty-three cases of appendicitis, and A. T. Smith, of Montreal, found appendicitis in 7 per cent. of his cases of pus tubes.—F. T. S.]

Drainage of the Peritoneal Cavity.—Clark believes that one should not drain the large majority of cases, because local irritation and retardation of healing are engendered; the drain is inefficient, the peritoneum soon becoming walled off by lymph; infection travels down the tract; the drain, if it be gauze, is difficult to remove; there is danger of dragging the omentum or intestines out on the skin, or of causing hemorrhage, if the gauze be removed before the fifth day; and,

because post-operative obstruction, fecal fistula, vesical complications, and hernia are not uncommon sequelæ. Drainage should be evaded by cleanliness; by hemostasis; by avoiding bruising; by not constricting large areas of tissue by ligature; by isolating the general peritoneal cavity; by sacrificing as little peritoneum as possible, because of its absorbing properties; by conserving bodily heat; by avoiding the rupture of intraperitoneal abscesses; by irrigation; by promoting absorption by postural drainage, which consists in elevating the foot of the bed, so as to drain dead spaces in the pelvis, and to assist the normal peritoneal current, which moves towards the diaphragm, where the greatest absorbents lie; and finally by employing submammary saline infusions when symptoms of sepsis arise.—*Journal of Obstetrics and Diseases of Women and Children*, April and May, 1897.

Ligation of the Bases of the Broad Ligaments for Interstitial Uterine Fibroids.—Martin summarizes as follows: It is a minor operation; reduces the tumor by starvation, and cures the hemorrhage by depriving the uterus of two-thirds of its blood-supply; does not unsex; is applicable when radical measures cannot be undertaken, because of the condition or fear of the patient, or because of mechanical obstacles; and it is specially indicated in small bleeding fibroids occurring at the menopause. It is not applicable to pedunculated, subserous, or submucous fibroids. In fourteen cases, in which two or more years have elapsed, there has been one return of hemorrhage and one of pain.—*British Med. Jour.*, October 23, 1897.

A New Hernia Operation.—Fowler. A curved incision dividing the anterior wall of the inguinal canal, is made from the pubic spine to the level of the internal ring; the cord and sac isolated, the latter being cut off at the level of the internal ring; the deep epigastric tied; the posterior wall of the inguinal canal and Hesselbach's triangle severed; and the spermatic cord placed within the peritoneal cavity. The peritoneum and transversalis fascia are broadly approximated in front of the cord from the internal ring to point just below the level of the pubic bone, in order that the cord may curve slightly upward and forward as it leaves the peritoneal

cavity. Next, the inguinal canal is closed by accurate suturing, and the new external ring strengthened by pubic displacement of the rectus muscle. This operation obliterates the inguinal canal and the internal ring, and makes an exit, which is strengthened by the displacement of the rectus muscle, for the cord upon and somewhat behind the pubic bone, the direction being forward and upward. Dr. Fowler has done this operation five times.—*Annals of Surgery*, Nov., 1897.

Intussusception.—Laurent and Paley report the following case: A woman, 33 years of age, after a short period of abdominal indisposition, suddenly developed acute obstructive symptoms with intense pain and a sausage-shaped tumor in the right iliac region. She refused operation. Diarrhea set in at the end of a fortnight, and nine days later nine and three-quarters inches of ileum and cecum were passed. The patient died ten days later.—*Bull. de Société Anat. de Paris*, May-June, 1897.

Hydrocele may be cured, writes Van Schaick, by tapping with a small trocar, and, as the fluid flows slowly out, pushing a catgut ligature rapidly through the cannula until eight inches have disappeared. When the fluid has ceased flowing, the catgut is cut off and pushed into the scrotum, where it causes an aseptic inflammation. Neither fever nor nausea follows this operation, which is ascribed to a French surgeon.—*Med. Rec.*, Oct. 30, 1897.

Correspondence

A SPECIAL WEEK IN DIAGNOSIS.

To the Editor of Philadelphia Polyclinic:

DEAR SIR:—In response to your suggestion, editorially mentioned in your issue of November 6th, I would state that I would be pleased to see you inaugurate a week in Physical Diagnosis or Differential Diagnosis, and one on Internal Medicine in general, both of which would in my judgment prove profitable to the general practitioner. Diagnosis is the important feature in the practice of medicine, and the busy physicians too readily drop into a routine in its procedure, which renders their usefulness in therapeutics faulty. It is especially important, it seems to me, to review the differential clinical

diagnosis and to add as much as possible the new methods of laboratory diagnosis. Medical men grow rusty, away from medical centers even where literature is accessible and society work is in evidence. This is largely due to the lack of interest in local medical society work, and the hap-hazard way in which medical journals are treated. The graphic method is the best way to teach mathematical studies, as my experience in engineering demonstrated, and so it is that the clinical method of teaching impresses facts in diagnosis and differential diagnosis better than didactic or recitation methods. This I learned both as a student and teacher, and so I say inaugurate a week or two weeks' course in diagnosis and you will have patronage from the general practitioners, who are anxious to keep in touch with everything of practical worth to them.

Very truly yours,
FRANK PARSONS NORBURY, M.D.,
Managing Editor *Medical Fortnightly*,
St. Louis.

New Publication

A TEXT-BOOK OF PRACTICAL THERAPEUTICS, with especial reference to the application of Remedial Measures to Disease and their Employment upon a Rational Basis. By Hobart Amory Hare, M.D., Professor of Therapeutics and Materia Medica in the Jefferson Medical College, Philadelphia, etc. With special chapters by Drs. George E. de Schweinitz, Edward Martin and Barton C. Hirst. Sixth edition, thoroughly revised and largely re-written. 8vo, pp. 756. Philadelphia and New York. Lea Brothers & Co. 1897.

The many editions of this work called for show that it meets with appreciation by the profession. It has, therefore, passed beyond the legitimate province of criticism. The new matter which has been added has been carefully incorporated with the text through the elision of matter which has become partially obsolete. The general characteristics of the book are the same as those of previous editions.

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PHILADELPHIA, NOVEMBER 27, 1897

INTERNAL MEDICINE AS A VOCATION.

THE noteworthy address of Dr. Osler, before the Academy of Medicine in New York, a portion of which we reproduce in another column, demands serious attention from students and teachers. Dr. Osler does not speak to the man or woman to whom the practice of medicine is merely a means of breadwinning or cakes-and-ale winning, but to the one who is ambitious—ambitious in the highest sense, emulous not alone of personal distinction, but, like the distinguished author, of contributing to the progress of science and to the welfare of men.

The course he outlines, requires not only self-restraint, but self contentment, and to many the latter is the hardest discipline. To be satisfied with the consciousness of well-doing, while those who one knows do not well are receiving the honors of place, the emoluments of popularity, the plaudits of profession and public, requires even greater moral strength than that which causes one, in the first place, to choose the true path or maintains him in it, despite the material losses involved. Most mortals will be inclined to grumble a little.

Granting, however, the possession of all the necessary virtues, we are not sure that

Dr. Osler's Lydgate can develop in America, in the early portion of the twentieth century, along the lines laid down. The conditions of dispensary and hospital organization, except possibly at Johns Hopkins, are not, as a rule, favorable. In the Philadelphia Polyclinic, it is true, the faculty is largely, though not entirely, made up of men who entered as clinical assistants in the dispensaries, and who have risen through the various grades to the positions they now occupy. But in this respect the Polyclinic differs from undergraduate schools, in which such careers are the exception. Indeed, concerning one famous American school it was said for many years that so soon as a man showed ability in a subordinate position, he was incontinently gotten rid of.

But the men most sought as consultants in this city, and, we presume, elsewhere, are the college professors. Their names are known to the public, and their pupils naturally turn first to them when confronted with difficulties in practice. True there are a few men not officially connected with the colleges who enjoy the confidence of a smaller or larger circle of their professional brethren and are called in consultation by these friends. But the bulk of consulting medical practice—we are not speaking of neurology or other specialty—goes to the occupants of collegiate chairs, and hence the man who aims to become a consultant must obtain such a chair. To be chosen to a collegiate chair, medical or other, requires more or less learning and ability, but most it requires influence, social, political, or personal, or all three, according to circumstances. Unworthy candidates do not usually succeed, but among worthy candidates it is not always the best equipped who is selected by the lay board of trustees—or, for that matter, recommended by a Faculty—but not rarely the one with the strongest connections or the most earnest friends. Were Dr. Osler's suggestion as to

extramural teaching adopted, this would materially alter the conditions. An extramural chair whose teaching was recognized as equivalent to that of an intramural chair, would give the necessary prestige and acquaintanceship for the development of consultation work, if not for fashionable or popular vogue. But there is at present little likelihood that those who control collegiate policy will favor this admirable suggestion, or take any steps to carry it into effect. Hence the man who pursues the plan laid out by Dr. Osler is likely to find himself at forty-five not only without money in bank, but likewise without commanding position or practice. That is not to say that Dr. Osler's plan is not a good one, judged simply on its merits, but in all things, medical careers as well as prescriptions for the sick, advice must be governed by circumstances.

The man who desires to make clinical medicine his vocation, must under prevailing conditions in America, unless he is possessed of an income independent of his own exertions, or has been fortunate enough to secure one of the few paying laboratory positions, seek general practice as a means of livelihood. Nor are we so sure as Dr. Osler that under the circumstances this is not the best and broadest training he could receive. Keeping his ultimate aim steadily in view he reads diligently old books and new journals—nor medicine exclusively, but history, philosophy, elegant literature, general science, and biology; he pursues such laboratory investigations as circumstances permit; sees and performs as many autopsies as possible; attends the meetings of the Pathological Society, which is almost certain to exist, or which he and others must found if necessary, and if there be organizations like the Philadelphia Academy of Natural Sciences and the Franklin Institute, attends appropriate meetings of those bodies likewise. He does dispensary work (both indoor and outdoor),

studying diagnosis and therapeutics practically and assiduously. Seeking a hospital position by any honorable means and recognizing that it must come to him by favor, he strives nevertheless to deserve it. He gradually contracts his practice by dropping surgery, obstetrics, and the specialties, and if professorial appointment does not come, has at least made himself worthy of it, and has his small consulting support without it. Perhaps he has secured a minor teaching position, and this serves to keep him in touch with students and forces him to keep informed of progress in diagnostic and therapeutic methods and in general pathology. Meantime he writes as opportunity offers, clinical reports, monographs, perhaps finally an ambitious work. Fortunate he is, if the hack work done on journals, annuals, and the like, for bread, the translations made, editing done, or articles written by him for bread and butter and to be published in the name of some older man in higher station, have not exhausted him before he can put pen to a book for reputation or for cakes and ale.

It is doubtless true as Dr. Osler states that absorption in practice during early professional years prevents scientific investigation, but if one must live by his profession he cannot live wholly for it. The long denial of the ties of wife and family, implied in Dr. Osler's advice, or the marriage for money, which may be the alternative—considering now the man rather than the student—is distinctly bad. An improvident marriage is not to be advised, but if one must choose between sacrificing the best gift of life and foregoing professional ambitions, the latter is the choice to be made. Indeed, as life goes on, and one reaches a point of view from which he can justly estimate that which is worth having on earth, and that which is indeed but "vanity and vexation of spirit," he that has not waited to put sickle to the har-

vest before seeking his Ruth, will find that compared with the love and sympathy that is his in success and in disappointment, the constant encouragement given to his better nature, the support he may rely on in time of doubt and trial,— that compared with these, the fame and fortune he may have missed are but as dust in the scale. He would not give one peal of laughter from baby lips, for all the rewards that profession or public has to offer. He has chosen the better part.

S. S. C.

Editorial Note

Dr. Harrison Allen.—In the death of Dr. Harrison Allen, the Polyclinic has lost an honored former Professor; but to all who knew him, the personal loss outweighs for the present all appreciation of his relation to institutions. Characterized by the modesty which ever anew surprises us in the great men of science, he never exploited himself, his work, or his official relations; and not a few who knew many sides of his well-rounded character will be surprised as unknown phases of his personality are brought to light and he is shown to have impressed himself strongly upon persons or institutions with which they did not know him to be in relation. Yet it was as a skilled and deeply learned specialist in diseases of the nose and throat that most of his daily work was done, and it was only in the Philadelphia Polyclinic that he ever held a chair as a teacher of these matters.

Of the events of his life in preliminary education, in the professional school, in the Army, in the Smithsonian, and in Philadelphia as Professor of Comparative Anatomy, or of Physiology in the Dental School and in the University, of his relations to the Academy of Natural Sciences, the Wistar Institute, the Contemporary Club, and other organizations, the many obituary notices already published have perhaps sufficiently spoken, except that few can have adequate apprecia-

tion of his influence in these various directions. It is in his closer individual relation as a friend and guide always ready to afford the aid of his cautious and considerate counsel to one who sought it in professional or personal matters that many besides the writer will miss and regret him. As a teacher of undergraduates, his student-mind ever open to new lines of evidence and weighing the facts on all sides of a question, may have seemed insufficiently assured as to the cardinal facts with which he dealt. All was tentative to his inquiring nature and he could hardly be sufficiently dogmatic to set forth his subject with *ex cathedra* authoritativeness. But to the individual student there was a wealth of instruction and stimulation in his many-sided study of a topic, which always suggested new points of approach and showed that his views, if modestly presented, were yet really clear-cut and well-grounded. And the absolute trustworthiness of his character gave full assurance that no bias would blind him in his judgment, unless in believing of others better than they deserved.

As one of the makers of Rhinology, he had passed the pioneer stage and become skilful in treating the nose before most of the European laryngologists had discovered the existence and importance of that organ; and if he was considered a radical man, inclined to adopt extreme measures, it was because he had weighed and found wanting many of the methods with which others were dallying. His honest convictions could not admit of procedures which he had found merely palliative, and his profound knowledge of the anatomy and physiology of his field and its variations in health and disease placed him not infrequently in the criticised position of a surgeon ahead of his time. Yet he was truly conservative in avoiding everything not clearly justifiable and did even more to restrain the ill-advised zeal of experimentalists

than to further the positive advance of his specialty. He has left much well-sowed seed which rests with his followers to nurture into the full fruition he was earnestly, untiringly striving for, and this may do much to fill the serious gap which he has left in the ranks of the profession; but nothing can fill out the loss felt in many hearts outside his bereaved home.

B. A. R.

In the Clinics

FOR *migrain* and *neuralgic headache* Dr. Eshner prescribes the fluid extract of gelsemium and fluid extract of *cannabis indica*, of each 3 drops, which can be increased in drop doses to 5 drops each, three times a day, until the physiologic action of the drugs appear.

* *

DR. DAVIS, in a recent lecture, called the attention of his class to the various *injuries* to the *female birth-canal*, which may be produced by a horizontal line of traction on a pair of forceps during delivery. When the fetal head is above the pelvic floor, traction should invariably be made in a line downward toward the obstetrician's feet. This can best be accomplished by some sort of axis traction-apparatus attached to the forceps

blades. When the head is at the vulva, the handles of the forceps should be raised over the pubes so as to draw the head away from the perineum, at the same time taking care that the anterior vaginal wall is not lacerated.

* *

PARTICULAR attention was called recently by Dr. Young to *the three stages of hip disease* from a *pathologic* standpoint. The first stage is from the beginning of the disease to the formation of pus in the joints. The second stage is from the formation of pus in the joints, until the development of pus outside the joint. The third stage is from the end of the second to the termination of the disease. These stages correspond to the deformities by which the stages were formerly distinguished.

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THE PHILADELPHIA POLYCLINIC

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THE VARIETIES AND CAUSES OF BALDNESS.

BY JAY F. SCHAMBERG, A.M., M.D.

Associate in Skin Diseases, Philadelphia Polyclinic; Dermatologist to Union Mission Hospital.

HAIR is a specialized epidermal appendage, receiving its nourishment and innervation through the cutaneous blood-vessels and nerves. Its trophic centers are extremely impressionable, requiring but slight faults of nutrition to produce very appreciable effects. A knowledge of the anatomy and physiology

of the hairy system materially aids in the study of diseases of these appendages.

The varieties and causes of alopecia are numerous. Brocq, in his "Traitements des Maladies de la Peau," has given a schematic classification, which is below presented in a modified and simple form:

- | | | | | |
|------------------------------------|---|--------------------------------------|---|---|
| I. ALOPECIA DUE TO GENERAL CAUSES. | { | (1) Natural or Physiologic Alopecia. | { | A Congenital Alopecia.
B Senile Alopecia.
C Premature Alopecia. |
| | | (2) Pathologic Alopecia. | { | A Alopecia due to acute general diseases. <div style="display: inline-block; vertical-align: middle; margin-left: 10px;"> { Eruptive Fevers, such as
 Scarlatina, Variola, etc.
 Typhoid Fever.
 Pregnancy. </div> |
| | | | { | B Alopecia due to chronic general diseases. <div style="display: inline-block; vertical-align: middle; margin-left: 10px;"> { Syphilis.
 Chronic Intoxication,
 Anemia.
 Diabetes.
 Cancer.
 Phthisis.
 Neurasthenia.
 Leprosy.
 Myxedema.
 Uric Acid Diathesis. </div> |
-
- | | | | | |
|-----------------------------------|---|--|---|---|
| II. ALOPECIA DUE TO LOCAL CAUSES. | { | (1) Diseases in which Alopecia occurs only accidentally. | { | Seborrhea.
Erysipelas.
Eczema Seborrhoicum.
Psoriasis.
Syphilodermata.
Folliculitis.
Lupus Erythematosus. |
| | | (2) Diseases in which Alopecia is the chief symptom. | { | Alopecia Areata.
Ring Worm.
Favus. |

It will be seen from the above classification, which might be still further amplified, that the relation of alopecia to constitutional and local conditions is a most complex one. The scope of this paper will not permit of an analytic study of the entire subject of

alopecia. It will suffice to call attention to some of the more important varieties of alopecia, their diagnosis and treatment.

PREMATURE ALOPECIA.

This is, perhaps, the form which phy-

sicians are most frequently called upon to treat. This variety is characterized by a general thinning of the hair, particularly over the vertex, frontal and temporal regions. Each combing or brushing of the hair is accompanied by a hair loss, calculated to arouse in the mind of the patient, visions of a "bald pate." This form of alopecia is more common in men than in women, and may occur even at the age of twenty. It is, as a rule, gradual but progressive. The most potent causes of premature alopecia are *heredity*, and *seborrhea* (dandruff) of the scalp. These causes may exist singly or in combination, or may be further complicated by any of the debilitating constitutional conditions mentioned in the above classification. When heredity is the causal factor in an alopecia, the condition may be considered practically physiologic. Hereditary influence is so well recognized as a cause of baldness that even laymen read their future in the shining cranial horoscopes of their fathers.

Premature baldness may, however, in many cases be directly attributable to a neglected seborrhea of the scalp. The hair follicle and the sebaceous gland are in such close anatomical relation that it is not surprising that diseases of the latter should unfavorably influence hair growth. As a rule, the falling of the hair consequent upon seborrhea capitis is a gradual defluvium; occasionally, however, the loss may be comparatively rapid. The prognosis in premature alopecia should be guarded. In many cases much may be accomplished by judicious treatment, in other cases, however, all treatment is unavailing. In general it may be said that the more dandruff there is present, the better is the prognosis. Dandruff is a removable cause, while heredity is not.

The local treatment consists of the proper cleansing of the scalp and the stimulation of the sebaceous glands to healthy action. The

tincture of green soap makes an admirable shampoo for the scalp, removing in a thorough manner the epithelial and sebaceous debris there present. The list of hair tonics is legion. The following may be recommended as extremely useful:

Resorcin	2 drams
Salicylic acid	30 grains
Castor oil	1 fluidram
Rectified spirit	6 fluidrams
Oil of bergamot	1 fluidram
	Mix.

Rub well into the scalp every night.

When greater stimulation is desired, one may use

Mercuric chlorid	12 grains
Betanaphthol	40 grains
Castor oil	1 fluidram
Rectified spirit } each	3 fluidounces
Bay rum	

Internal treatment must be based upon general principles. In some cases iron, quinine, strychnin, arsenic and codliver oil are of value.

SYPHILITIC ALOPECIA.

The alopecia that occurs in secondary syphilis is rapid and marked. It does not occur in all cases, and is not always proportionate to the severity of the infection. In women it may be the first symptom to attract the attention of the patient. It may be distinguished from ordinary alopecia by the rapidity of the hair-fall, the irregularity and streakiness of the baldness, and the coincident loss of eyebrows, eyelashes and at times pubic and axillary hairs. In a few cases the loss of hair is first and even solely observed in the eyebrows in moth-eaten patches. This localization is considered by Fournier, as highly characteristic of syphilis. Under appropriate treatment, full regeneration of the hair takes place.

ALOPECIA AREATA.

Alopecia areata is a not uncommon and easily recognized disease of the hair. It oc-

curs in round or oval circumscribed areas, usually of the size of a silver half-dollar or thereabouts. The patches are soft, smooth, entirely devoid of hair and at times slightly depressed beneath the surrounding skin. These patches may spread by peripheral extension, coalescing and producing a total cranial alopecia. In rare cases the eyebrows, eyelashes and entire lanugo hair of the body are lost.

The causation of alopecia areata is a subject still within the realm of the debatable. One approaches perhaps nearest the truth, when it is stated that there are two varieties, the one trophic in origin and the other parasitic. The prognosis is as a rule favorable: the younger the individual the better the prognosis. When regrowth takes place, the hair is at first downy and whitish, only later becoming coarse and pigmented.

The treatment consists in the local use of

antiseptic stimulants. The following are eligible preparations:

Betanaphthol	1 dram
Petrolatum	1 ounce
Tincture of cantharides	$\frac{1}{2}$ fluidounce
Tincture of capsicum	$\frac{1}{2}$ fluidounce
Rectified spirit	2 fluidounces

In obstinate cases blistering may be resorted to.

In the neuropathic variety the administration of arsenic is advised.

I believe that many cases of alopecia areata get well spontaneously.

In the varieties of alopecia due to acute general diseases, such as *typhoid fever*, regeneration of the hair follows the restoration to health. The use of stimulating hair washes locally, and tonics internally, comprise the treatment. It has not been proven that the shaving of the scalp is followed by a more complete regrowth of hair.

A NOTE ON THE ARTIFICIAL DRUMHEAD AND BLAKE'S PAPER PATCH.

BY B. ALEX. RANDALL, M.A., M.D.

Professor of Diseases of the Ear in the Philadelphia Polyclinic, etc.

THE common lay opinion (too often supported by medical men who ought to know better) that "a hole in the drum" is fatal, or a great injury to the hearing, is curiously mingled with exorbitant ideas as to the value of an artificial drumhead. The latter is, of course, due to conscienceless claims of the makers and "inventors" of a host of patent appliances in which some useless and generally long exploded device is lauded as era-making and able to give hearing to the totally deaf if not to the dead. Deprecating medical intervention under the plea that patients can place such aids in position better than anyone can do it for them, they hold out promises of miraculous cures, and cite much-attested examples of their efficacy. Many samples of these wonderful appliances come into our hands because

thrown away by the disillusioned owner, or demanding medical skill to remove them from ears in which they should never have been inserted; but conscientious testing of their possibilities rarely shows them to be even as efficacious as Yearsley's original cotton-pellet. Even some medical writings overstate and mislead as to the powers of these aids; so brief discussion of the topic may clear up some misapprehensions.

It was in 1841 that a New York patient of Yearsley, of London, showed him how he was in the habit of greatly improving his defective hearing by pushing a moistened roll of paper down into contact with the remains of his drumhead. Finding a cotton pellet more adaptable to the majority of cases, Yearsley employed this and called medical attention to its value; and although

many predecessors had noted the value of such pressure upon the relaxed tissues, he is credited with the wide dissemination of the procedure. Toynbee advanced the view that closure of the tympanum by the membrane was important in restoring its resonance, and put forward a disk of thin rubber as both supplying a vibrating diaphragm and furnishing the needed support to the relaxed structures. A few others have seconded this teaching and have devised appliances for putting it into practice; and upon this basis has grown up the surprisingly large industry of manufacturing transcendent artificial drumheads.

Study shows that few cases give support to Toynbee's claim; and the use of mere blocks of rubber or similar solid bodies, proves that in most cases any device maintaining a light, unirritating pressure upon the relaxed chain of ossicles will accomplish all that is possible. Generally this works to the "tuning up" of the lax structures, just as the bridge of a violin raised into position under the loose strings can in an instant render them capable of giving or receiving musical vibrations. In some cases, however, the tension is already excessive, and the beneficial effect is gained by pressure about the short process, forcing the malleus handle outward.

To secure such pressure and to test its potency, no device is so neat and precise as the little paper spring of C. J. Blake, of Boston, who cuts a tiny ribbon of springy paper, notches the ends to give them better hold in the meatus and holding it as a loop in the grasp of the forceps, carries it down into contact with the short-process. Its released ends take foothold upon the canal-wall, while the pressure of its convexity can be adjusted to the precise point where its benefit is best secured, whether by increasing or diminishing the tension exercised through the ossicular chain. Such is the

principle of the artificial drumhead: while in practice that device which can in the individual case be best adjusted and remain with the least variation and irritation, is the one to be adopted for that patient. It is best to have several forms at hand and carefully to try them in turn, keeping the patients listening to a constant sound just within their perception,—tapping, ringing or ticking, or a constant murmur of conversation—that they may note the moment of most helpful adjustment. This decided, a patient can often be taught both to make and employ the little devices.

The cases open to benefit are generally those who have lost more or less of the drumhead by suppurative disease, leaving the ossicles poorly supported; but total loss of these accessories does not exclude the possibility of gain. Politzer has thought that he increased the efficacy in a case where only the stapes foot-plate or the membrane remained in the oval window by affixing a macerated stapes to the rubber disk of Toynbee, so that it should occupy the place of the lost ossicle. Where the suppuration has not wholly ceased, great caution is requisite that we shall not aggravate the flow by the presence of any such foreign body, while hindering its outflow in dangerous fashion. Here the cotton-pellet is generally best; it can be medicated and soaked with any desired solution; and frequent changes can be readily made. The boro-glyceride is commonly excellent for moistening the apparatus, of whatever sort; for few cases do as well with a dry arrangement. Occasionally a non-suppurative case will obtain help more real than imaginary; but these are rarely the long-standing, despairing cases which are most apt to grasp at such straws. Usually such patients only augment their tinnitus, vertigo and deafness by inserting these appliances as advised by friends or by the interested and all-claiming vendors.

One very important point usually ignored, has marked nearly every case in my experience. Whatever gain, great or small, could be obtained by the best possible placing of the little apparatus was soon secured as a permanency without its further employment. Long-continued use of the artificial drumhead I therefore believe to be generally needless and often detrimental, as in a case, the study of which interrupted the writing of these lines, where a small perforation (so reported on good authority) had become an almost total disappearance of the drumhead under its pressure, with binding down of the hammer-handle immovably upon the inner wall.

The view of Toynbee, that restoration of the drumhead as a diaphragm closing off the tympanum has value, receives, in rare cases, brilliant confirmation. Often a perforation improves the hearing, not only for high tones, but for all; and any closure of this, by healing or otherwise, brings loss of hearing. Yet instances of exactly the contrary are met, as in the case of a man in whom a collapsing scar in the stapes-region seemed to "blanket" that ossicle

except when it could be lifted by inflation and held away by collodion. This failing, I excised the cicatrix at his urging, and as this gained nothing, mobilized the stapes. The gain was little, even after repetitions; so, in the interest of healing the opening, I covered it with a little paper patch, as taught by Blake. Immediately his tinnitus ceased, and his hearing was better than at any time for months before; only to sink back whenever the patch loses its place. Although it has wholly failed to promote as usual the closure of the perforation, as have other "myringo-plastic" efforts, the patient very highly values his patch, and returns for the replacement as soon as it has in the slightest degree slipped from a position of complete occlusion.

Few other experiences of this sort, and none so notable, leave me still believing that in the great majority of instances the artificial drumhead is valuable only by reason of its pressure; and I can but repeat that a little cotton-pellet, best moistened with a bland aseptic fluid, will meet the needs of the great majority of cases much better than any costly "improvements."

NOTES ON THE TREATMENT OF TYPHOID FEVER.¹

BY SOLOMON SOLIS-COHEN, M.D.

Professor of Clinical Medicine and Therapeutics in the Philadelphia Polyclinic, etc.

SHOULD a routine treatment of typhoid fever have to be pursued, there is no question that least harm and most good will result from the employment of systematic bathing in cold water after the method of Brand. But this treatment is not always necessary, nor is every case bathed best treated by undeviating adherence to Brand's method. As I had the pleasure of advocating the Brand system and of employing it according to my then limited facilities before many of its present

advocates had seen fit to forego the use of antipyrin and similar methods,² I do not hesitate to place myself on record against the extreme views now given vogue. Unquestionably water, and often cold water, is the one agent of greatest utility in the management of enteric fever. Water should be used freely in every case, and should be used both internally and externally. In severe cases, or in cases that promise to be severe, if seen before the tenth day systematic plunging in

¹ Abstract of Remarks at the Philadelphia Polyclinic Hospital.

² See my article in the *Medical and Surgical Reporter*, Philadelphia, June 25, 1887, and notes of my Lectures (unpublished), on hydro-therapeutics at the Philadelphia Polyclinic and Jefferson Medical College in the same year.

cold water should be instituted at once; and the now classic directions of Brand should be followed with reasonable strictness. The inexpert will do better by following them to the letter, than by attempting modification. The experienced will adapt his directions to circumstances. Between the tenth and twelfth days it is doubtful whether plunging should be begun. After the twelfth day the inexpert should never begin plunging. Plunging begun earlier will of course be continued or discontinued according to circumstances. When plunging is not well borne, or when for any reason it has not been instituted, frequent cold or cool sponging should be carried out. This is partly to reduce temperature, but largely, like the bathing, to promote general metabolism, to stimulate excretion, and to keep up the tone of the peripheral vessels—which Dr. Woods Hutchinson so aptly calls “the skin heart.”

The temperature index may serve as a guide to sponging as to bathing. When the temperature in the mouth does not exceed 103° F., the patient may be sponged every second or third hour, with water at a temperature of 70° F., which may, if necessary, be gradually reduced to 50° F., in the course of ten to twenty minutes. When the temperature exceeds 103° F., sponging must be done at least every second hour, and the temperature of the water be correspondingly lowered; 60° or even 50° to begin with, and rapid reduction to 32° , being useful at times. The effects on temperature, pulse, respiration, excretion, sleep, and general comfort, must be the guides as to the time, temperature, and other details of the application; as a rule, patients should be allowed to sleep undisturbed for about four hours, even when applications are being made every second hour during wakefulness.

To reduce temperature, should this be thought necessary, and to prevent or control tympanites or hemorrhage, the continuous

application of ice to the abdomen—usually over the right iliac fossa—is useful. Sometimes it is advisable to intermit the use of ice, or to alternate the application of ice to the head and abdomen. In cases of severe nervous and cerebral symptoms or very high temperature there may be continuous application of ice to both head and abdomen. McCormick has had excellent success with the use of guaiacol externally.

The patient should be encouraged to drink cool water freely and frequently. The temperature should be that found to be most refreshing. Ice water should not be used.

Internal medication is useful. The bowels should be cleansed by enema on admission (unless after the tenth day), after which, according to circumstances, a few small doses or one large dose of mercurous chlorid (calomel) should be given. After the “calomel stool,” intestinal disinfectants may be usefully employed. These may not kill Eberth's bacillus, nor neutralize its toxins, nor chase after it into the spleen or cerebrum; but they do render the patient's intestine a less favorable breeding ground for this organism and its many named and unnamed congeners; they do diminish the formation and hence the absorption of various named and unnamed toxins; they do render the course of the case less severe. I affirm this unhesitatingly as the result of a sufficient clinical study. Laboratory explanations may be found hereafter.

Of drugs of this class one may use guaiacol or its combinations, of which I prefer the carbonate; phenyl salicylate (salol); beta-naphthol or its benzoyl compound (benzo-naphthol); creosote or its carbonate (creosotal); carbolic acid and iodine; and the like. I usually employ salol or guaiacol carbonate, in doses of about five grains every second to fourth hour; more recently I have used benzonaphthol in doses of ten or fifteen grains. If diarrhea is troublesome, bismuth salicylate

may be used with the more powerful anti-septic. If constipation be a feature of the case, an enema should be used every forty-eight hours, except during the period when ulceration is at its height, say from the twelfth to the sixteenth day, when the bowel should be let alone.

If, notwithstanding the free use of water, the urine is not excreted in sufficient quantity (that is if it be less than 30 ounces in a day) some mild diuretic, as solution of ammonium acetate, or sweet spirit of niter, or infusion of buchu, should be given. This is rarely necessary, as the water drunk is usually an efficient diuretic, and the stimulation of the skin likewise assists excretion.

When the tongue is dry, harsh, fissured, covered with brownish fur, turpentine is useful beyond doubt. Sufficient must be given, about fifteen drops in emulsion or sirup of acacia, every second to fourth hour. If any sign of renal irritation develop, turpentine must be abandoned. I have, however, never seen it do harm, and have seen it do good too often to be laughed out of its use. It also serves well in cases of tympanites or hemorrhage.

During the second week strychnin is useful in small doses, say $\frac{1}{100}$ to $\frac{1}{80}$ grain every second to sixth hour. During the third week it may be increased to $\frac{1}{30}$ grain every third hour, if need be. Alcohol is rarely necessary before the third week, and often unnecessary throughout. In case of high fever, however, it sometimes saves combustion of tissue, and when the Brand system is carried out, a little red wine ($1\frac{1}{2}$ ounce) should be given before and after each bath.

It is unnecessary to speak at this time of diet and general hygiene.

Concerning complications I will refer to hemorrhage only. I believe opium to be our best remedy. With this, continuous application of cold to the abdomen by means of the icebag, and the use of turpentine may

be combined. Ergot is useless. Calcium chlorid may possibly be useful. I think it has been useful in my hands, but I have also seen it fail to do any good. McCormick advises strongly against the use of opium in hemorrhage, and warmly advocates flushing of the colon with cold water. His results have been good, but I hesitate to abandon the classic plan, which has hitherto yielded good results in my own practice.

Current Literature

Effects of Hereditary Syphilis Upon the Placenta, Cord, Fetus and Child.—J. D. Bissell (*American Gynecological and Obstetrical Journal*, vol. xi, No. 2, 1897). The cause of death of syphilitic children in utero, is in the vast majority of cases due to a diseased condition of the placenta or cord rather than to the breeding of the syphilitic virus in the fluids of the fetus itself. Six cases are reported, three of which were born dead and macerated, and in each there were positive evidences of fatal interference of the blood supply to the fetus. In the cases born alive, no evidence of disease was appreciable in the placenta or cord. In one of the cases the vessels of the cord were occluded for about three inches by a deposit, the result of inherited syphilis. Another case presented a placenta which had undergone cheesy degeneration; it was thick, yellowish in color, very friable, the disease being situated in the villi, transforming the placenta into a non-functionary organ. At the junction of the cord with the abdomen there was a failure of development in the cord itself, the vessels being patulous, but not sufficiently so to allow the requisite amount of blood to pass to and fro, which undoubtedly was an active factor in the early death of the fetus. Hydramnion, a condition somewhat characteristic of a syphilitic pregnancy, occurred in another case, evidently the result of interference in the fetal circulation occasioned by the diseased placenta. Another died at five and one-half months, due principally to failure of development of the umbilical vessels.

W. H. W.

IRIS VERSICOLOR.

In the *Journal of Medicine and Science*, Dr. Hen-son speaks of blue flag. He says that the green-drug tincture of the root as made by him is always a faint straw color, precipitating only a trace of resin when thrown upon water, but vastly more active than the dried root preparations.

The green root affects the glandular system, as corrosive sublimate would, and as quickly, while the dry-root tincture is simply a poor cholagogue. The green-root affects the throat, and rivals phytolacca in tonsillitis, diphtheria, etc.

Gather the rhizomes just after the flowering season, slice very thin transversely, dry for a day in a cool, shady place, and macerate in alcohol for several weeks; percolate or filter, and make each ounce represent one ounce of the partly dried root.

Iris is a mild hepatic stimulant, with an especial curative effect upon the stomach, resembling that of sodium sulfite. It also acts on the pancreas, a power shared only by iodine, mercury, and perhaps mandrake and cinchona. The key to the use of iris is when the spleen and pancreas are affected as well as the liver, with sour stomach, vomiting of acid, sour or yeasty, half-digested food, an hour after meals. If the liver is also very torpid add podophyllin; if constipation distresses, add aloes; or in females, juglandin or cascara. If the whole alimentary canal needs toning up, hydrastin is required. The diarrhea present is relieved by iris and hydrastin.

Why do our country doctors not pay more attention to the valuable drugs produced in their own door yards?—*The Alkaloidal Clinic*, October, 1897.

In the Clinics

In the case of a colored woman, 39 years old, referred to Dr. Eshner's clinic from the Eye Department, with photophobia on the left, vision of $\frac{1}{16}$, no abnormality of the fundus, absence of inflammatory manifestations, symptoms of migraine, aortic obstruction, and pain with diminished appreciation of pin-pricks on the left side of the body, a diagnosis of *hysteria* was made and marked improvement followed *hypnotic suggestion*. Later three drops each of fluid extract of gelsemium and fluid extract of cannabis indica were prescribed.

* * *

DR. YOUNG dwelt on the importance of "psaos irritation" as an early symptom of *lumbar spinal caries*. The contraction of one psaos muscle flexes the thigh and tilts the body to one side with limitation of forced extension of the hip-joint. The re-

semblance to hip joint disease at the early stage is great, but the association of increased reflexes from irritation of the spinal cord, and spasm of the spinal muscles serve to distinguish it frequently before the occurrence of deformity.

News Item

A NEW MEDICAL JOURNAL.—In January, 1898, The Philadelphia Medical Publishing Company, incorporated under the laws of Pennsylvania, will begin the publication of a weekly medical journal, to be called *The Philadelphia Medical Journal*. The company has a capital of \$30,000, in shares of \$10 par value, full paid and non-assessable. The management of the company is entrusted to a board of trustees, in which are representatives of leading medical schools.

The editorial management has been entrusted to Dr. George M. Gould, whose high reputation as a medical editor guarantees a vigorous, high-toned, and interesting publication.

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THE PHILADELPHIA POLYCLINIC

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PHILADELPHIA POLYCLINIC,
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PHILADELPHIA, DECEMBER 4, 1897

INTERNATIONAL QUOTATIONS.

A GLANCE at the French and German medical periodicals will quickly and surely convince the reader that references to articles written by Americans are surprisingly scarce, and, on the other hand, no American considers his paper complete without a half dozen or more quotations from foreign authorities. The reason for this uncomplimentary and one-sided state of affairs is not apparent on the surface. As a rule, we, on this side of the Atlantic, consider that our capabilities of observation and of logical deduction are not lacking and this, particularly, in the study of clinical material. Neither are we in such haste to arrive at conclusions that the analyses of our cases are incomplete and our treatment so far behind the times that we are ashamed to exploit it. On the contrary, we do not hesitate, notwithstanding our well-known national modesty, to rush into print when we have anything to say, good, bad or indifferent, whether our motive may be to teach our less learned colleagues or to attract patients to our own offices or dispensaries. Therefore, foreign writers have not the excuse that American medical literature is not sufficiently abundant. Neither do we grant that

the quality is inferior. While admitting that publishers accept many papers, both short and long, that do not elevate the tone of American medicine or subserve any good purpose except, perhaps, to furnish an excuse and opportunity to interleave advertisements (which may be the *raison d'être* in the publisher's mind), we claim that American medical authors furnish articles for publication that accurately represent progress in medicine and are of great value to their readers. We cannot suspect our Continental brethren of jealousy nor of ignorance of the English language, for foreigners are better linguists than Americans, nor can we ascribe the lack of citation to lack of material, or to the inferior quality of our productions. The real reasons would seem to be that our published reports are scattered through innumerable journals instead of being collated into a few, and that the great majority of these journals never cross the seas. We, ourselves, cannot expect to keep informed of the nature and merit of the many papers. For were it not for the aid, invaluable to the compiler and student, of the *Index Medicus*, the majority of the articles would reach but a small audience. Therefore, we cannot hope that others, living thousands of miles away, will be more industrious with our periodicals and better acquainted with our attainments. But this reasoning will not hold as an explanation why American writers prefer to quote foreigners rather than their own countrymen. This anomaly arises in part, and we say it regretfully, from an erroneous conception that an article looks more learned and authoritative if bolstered by German and French quotations and authors' names, but mostly from our adherence to the traditional belief that a "prophet is not without honor except in his own country." To those familiar with the history of American medicine it would be useless to enumerate the many advances origin-

ated and developed by our medical men, and to those unfamiliar with their achievements it is enough to say "honor to whom honor is due."

H. F. H.

Editorial Notes

The Pathological Society.—The Proceedings of the Pathological Society of Philadelphia are hereafter to be published in periodical form. We have received the first issue of the new series, which bears date October 28, 1897, and contains the proceedings of the society for the month of September, and the address of the retiring president, Dr. J. H. Musser, delivered at the meeting of October 14th. The contents are interesting and reflect credit upon the society. It is to be expected that the new method of publication will increase the interest in the proceedings of the society, and by giving timely publication induce many members to present specimens, and otherwise take part in the meetings, who have hitherto been somewhat lukewarm. At the same time it does greater justice to those who have been, and will continue to be, active in the society's work, and more accurately represents its value to members, to medicine in general, and to Philadelphia as a medical and teaching center.

The Philadelphia Medical Journal.—Elsewhere we reproduce a portion of the circular announcing that the *Philadelphia Medical Journal* will issue its first edition in January, 1898. There is no reason why the new enterprise should not be thoroughly successful from the first, and every reason why it should be so. Its editorial management will be in the hands of one whose reputation is deservedly high as a man, a scholar and an editor. One may be perfectly sure that with Dr. Gould in command no sinister influences, personal, factional, or commercial, will dominate the editorial policy of the journal. One can expect scientific contributions of the highest merit, clinical notes of practical importance, a bright news department, honest book reviews, and fearless and vigorous editorials. The *Philadelphia Journal* will doubtless be the most interesting of all our exchanges, and in scientific and literary merit excelled by none.



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THE PHILADELPHIA POLYCLINIC

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DECEMBER 11, 1897

THE THERAPEUTIC UTILITY OF HYPNOTIC SUGGESTION.

BY AUGUSTUS A. ESHNER, M.D.,

Professor of Clinical Medicine in the Philadelphia Polyclinic; Physician to the Philadelphia Hospital; etc.

CERTAIN disorders are designated functional, because no definite pathology can be assigned them. The qualification is somewhat objectionable, inasmuch as derangement of function implies necessarily alteration in structure, though this may be beyond present means of detection. On account of the absence of appreciable lesion, hysteria is often designated a functional neurosis. There seems reason to believe, however, that these so-called functional disorders are dependent upon nutritional changes in the cells of the affected organ, or organs, for healthy function presupposes normal nutrition; while in a vicious circle impairment of function will have a tendency to aggravate defective nutrition. It may be stated in a general way that nutritional derangement results from excess or deficiency of pabulum, represented as plus or minus. The former corresponds with intoxication, the latter with inanition, while both present many symptoms in common.

It is especially in the functional or nutritional disorders that good may be hoped for from general and special therapeutic measures. We have no remedy that will restore to the normal a diseased cardiac valve, though by intelligent management and discriminating medication the secondary circulatory derangement may be overcome. We cannot hope to cure the intestinal ulceration of typhoid fever, though we are often compelled to prevent or antagonize, and successfully, the toxic manifestations of the dis-

ease. Hysteria may be considered a condition of neuro-psychic inco-ordination, and the treatment should be directed to the restoration of a stable nutritional equilibrium and the re-establishment of normal channels of nervous activity. The first end is best attained by a *régime* of generous feeding, with a proper adjustment of rest and activity, in accordance with the needs of the individual case. With improvement in nutrition comes usually general improvement. The hysteric has lost self-control and self-guidance. Sometimes these are regained without aid. Often, well-directed assistance will hasten their reacquisition. Such help may reside in the mere personality of the physician. More commonly some form of suggestion will be offered and accepted, consciously or unconsciously, directly or indirectly. It would seem as though the hysteric must learn what he can do, that he must have set in operation for him certain processes that he has lost the power of spontaneously initiating and consecutively carrying out.

There can be no doubt of the utility of suggestion in the treatment of certain functional and nutritional disorders. A large experience has firmly established the efficacy of this therapeutic procedure. Especially in cases of hysteria may excellent results be anticipated from its employment. It is to be borne in mind, however, that suggestion is capable of evil as well as of good. Four cases illustrative of the good effects of hys-

teria recently under my observation, are herewith reported.

CASE I.—C. C., a colored woman, about 39 years old, was referred to me at the Polyclinic by Dr. Hansell, with the report that the eyegrounds were normal in appearance; the left eye the seat of marked photophobia, with vision of one-tenth; vision in the right eye six-fourths. Treatment of the refractive error was deferred until the photophobia and other symptoms were relieved. The patient complained of headache, which had been present for two weeks and was very severe. Attacks of a similar kind had recurred at intervals of about six weeks during the preceding eight years. They were attended with nausea and vomiting. The manner of the patient, as well as the absence of any evidence of ocular irritation, suggested hysteria and further examination disclosed insensibility to pin-prick in various situations. The patient was accordingly hypnotized and it was suggested that her photophobia would disappear. She returned in the course of two days, with the report that this result had been brought about, though her headache persisted. For this three drops each of fluid extract of *cannabis indica* and fluid extract of *gelsemium* were prescribed.

I am indebted to Dr. Lewis Brinton for the privilege the succeeding three cases.

CASE II.—F. E., a colored woman, 35 years old, presented herself at Howard Hospital, with a history of having suffered for three weeks with pain in the left axilla and the lower portion of the adjacent breast. In the course of three or four days numbness appeared over the whole of the left arm and hand. There was also pain in the head, and a sense of heaviness in the left lower extremity. At times the woman was unable to lift the left foot from the ground, and when lying in bed upon the left side she was unable to turn without help. There was, further, a sense of numbness in the little and ring fingers of the right hand, extending also along the ulnar border of the forearm to the elbow. This had set in suddenly during the night and had been present for a week. The dynamometric record was 30 on the right side, 0 on the left. The knee-jerk was present on the right, but could not be elicited on the left.

Upon examination it was found that the

ulnar aspect of the right upper extremity was anesthetic from the fingers to the elbow, while on the left side the upper extremity, as well as the trunk, from the lower portion of the neck to the waist, was anesthetic. After taking potassium iodid for several days the patient returned unimproved. There was still great loss of sensibility upon the hand, forearm, and arm on the left side, but there was no wasting. The irregular distribution of the sensory impairment, together without actual paralysis, or trophic alterations, seemed to exclude peripheral neuritis and suggested the diagnosis of hysteria. The patient was accordingly hypnotized, and while the hypnosis was at this time not profound she was able to move the affected members throughout a wide range, but there was no immediate improvement in sensibility. She returned, however, after the lapse of a week, very much improved in every way, and continued improvement followed repeated hypnosis, until finally in the course of a few weeks the patient was almost entirely relieved of all her previous symptoms. The treatment included also a pill containing 1 grain each of the valerianates of quinin, iron and zinc, and later a mixture of nitrohydrochloric acid and *nux vomica* for the relief of symptoms of gastro-intestinal derangement.

CASE III.—K. H., a married white woman, 29 years old, came to Howard Hospital, relating that three years previously she had been thrown down and injured by a horse, particularly on the right side of the body and on the head. With aid, she was able to walk home, but soon after the accident she found that she could not use the right side of her body. She stated that her entire trunk and the right upper extremity were kept bandaged for a period of two years. During this time an abscess of the breast formed, which had to be opened. Some improvement followed the use of electricity, but this was only temporary. From the time of the accident there had been pains in the head and in the arm, preventing the use of the latter. From time to time the woman was seized with attacks of nervousness in which she became restless and worked up, and was moved by a desire to run away. Menstruation had been absent for five months, but abdominal pain was present at the time of the expected

period, when also the pain in the head was worse.

The patient manifested exquisite tenderness over the whole of the right lower extremity and upon the right breast, and also upon the left side in lesser degree. She had been threatened with removal of the breast if the symptoms persisted. There was some difficulty in walking and the patient feared abscess-formation in one or both hip-joints. There were no manifestations of trophic disturbance. The knee-jerks were active, but ankle-clonus could not be elicited. There was impaired reaction to painful impressions in irregular distribution. The patient yielded to hypnotism after some persistence and gradually improved after several sances, facility in walking returning before the painful sensation disappeared. The treatment included besides, at different times, asafetida, salicylates, bromid, and iron, quinin and zinc valerianates.

CASE IV.—M. C., a white girl 19 years old, applied at Howard Hospital, relating that for eight months she had from time to time, at intervals of varying duration, suffered from "spells" of some sort. The first followed vigorous jolting while dancing. In the "spell" the patient falls and draws herself up in tonic contraction. A number of persons usually held her. When unrestrained she bumps her head against the floor, the wall and other hard objects, and in the last attack, occurring several days before application at clinic, she bit herself upon the arm. Consciousness is said to be lost in the attack, on emerging from which she cries and sobs. Subsequently she feels quite herself. Before the attack the patient feels as if she wished to cry, then as if she "loses power of herself," and finally the seizure takes place. The sphincters remain under control. Worry and excitement are prone to induce attacks. As far as could be learned neither mental

shock, nor disappointment bore any relation to the original seizure. The patient had seen a friend in a convulsive seizure some six months previously. She became greatly excited at this time, but exhibited no convulsive manifestation. The patient was accustomed to take four cups of tea daily. Menstruation was regular and painless. There was no obvious derangement of digestion, circulation or respiration. The knee-jerks were preserved. There was diminished reaction to pin-prick upon the hands. The patient was readily hypnotized and suggestion was made and the convulsions have not since recurred.

The hypnosis in these cases was induced by having the patient fix her eyes upon the bright tip of a pencil brought gradually closer and closer to the center of her face, and necessitating progressively increasing convergence. Usually within about a minute, often less, sometimes more, the patient sighs deeply and spasmodically and her head droops to one side. Under these conditions sensibility to pain is diminished, sometimes totally lost. During the continuance of the hypnosis gentle stroking of the brows is practised and such suggestions as seem appropriate are made. It is possible that many persons would prove susceptible to hypnosis, with a little persistence on the part of the operator. That all of these are hysteric is doubtful, but that a neurotic substratum exists in them seems a reasonable assumption. To successfully effect hypnosis some co-operation on the part of the patient is necessary. This may be essentially passive, but it is the inability to resist that constitutes the neurotic stigma.

A FOREIGN BODY IN THE EAR.

BY CHARLES H. BURNETT, M.D.

Emeritus Professor of Diseases of the Ear, Philadelphia Polyclinic.

THE matron of the Baptist Orphanage, at Angora, sent to my office a few days ago a girl of 12, with an attendant, who said the child had something in her left ear. I failed to learn how the matron found out that anything was in the ear. As it is never

well to accept the statement of a child nor its attendants, that there is a foreign substance in the ear, I examined the ear and saw therein what looked like a ball of wax lying on the membrana tympani. A few syringefuls of warm water brought to the meatus what

proved to be a wild-cherry stone covered on its proximal surface with normal wax—and the ear was thus immediately restored to its integrity. The girl said that the seed had been placed in her ear by her companions "playing doctor."

The following practical deductions may be drawn from the facts in this case:

(1) Always examine an ear said to contain a foreign body, and find out whether such is the case before endeavoring to remove the foreign substance.

(2) Whatsoever a child puts into its ear, or allows to be placed there, is placed there easily and painlessly, and can be as easily and painlessly removed by *any physician* who can properly syringe the ear.

(3) A foreign substance was never known to be impacted in a child's ear *by the child*. Neither has a foreign body ever been impacted in the ear by syringing.

(4) When impaction has occurred, or any injury to the ear, after the insertion of an inanimate substance by the child into its ear, such injuries have been the *result of instrumental* endeavors at extraction by means of probes, hooks, forceps, etc. The latter are never needed by *anyone* at first, as the syringe will suffice in all cases where no violence has been exerted upon the ear. Instruments of any other kind should never be employed at any time by any hand but the most skilled.

(5) If animate bodies,—insects, etc., get into the ear, a few drops of oil will smother them and they can then be syringed from the ear. Maggots can be destroyed by a few drops of ether or chloroform put into the ear. They can then be lifted out by means of forceps. But this latter act can be performed only by an expert. However, the intense pain caused by the presence of maggots in the ear, can be allayed by the use of chloroform in the ear, as stated above.

A foreign body in the ear is a simple matter at first, and will remain a simple

matter, if the general physician will remember that the rule of safety is "the syringe or nothing," for the removal of an inanimate foreign substance from the ear. Dead insects can be syringed out, like any inanimate substance after they are killed. So safe and efficient is the syringe in most cases, that the instruction given the general physician now, the world over, is "*use the syringe or let the foreign substance in the ear alone.*" For, any substance a child can put in its ear or let a companion put there, "playing doctor," as they often do, is accomplished without pain or irritation. Insoluble, inanimate substances can remain in the ear indefinitely without any harm. The most that can happen will be the formation of a wax plug about the foreign body as a nucleus. It can then be syringed out with the wax plug as in the case just narrated. Any other procedure is full of danger for the patient.

Society Proceedings

COLLEGE OF PHYSICIANS OF PHILADELPHIA.

Section of Ophthalmology.

Meeting of November 16, 1897.

The Chairman, DR. W. F. NORRIS, in the chair.

DR. W. C. POSEY presented a

CASE OF METASTATIC UVEITIS IN BOTH EYES,
CAUSING BLINDNESS, RESULTING FROM AN
INTENSE INFLAMMATION OF THE NOSE AND
ITS ACCESSORY SINUSES.

A woman, aged 27, had been, for several years, subjected to the fumes of sulfuric acid, oxalic acid, and chlorin gas, while working in a steam laundry. A few months after engaging in this occupation, she had a sense of irritation in the nose and tingling in both hands. The nasal inflammation became worse until there was a profuse discharge from the nares and soreness of the mouth and nose. After some months, the nasal symptoms subsided, but her eyes became inflamed, and vision, which had commenced to fail, was entirely lost in two years. The conjunctivæ were healthy, the corneæ clear,

save for a small nebula near the limbus of the right; the globes were shrunken, quadrate, and soft; the anterior chamber was filled by the thickened, discolored, and vascular iris; the pupillary margin indrawn, and the pupil filled with organized lymph. This condition, Dr. Posey believes, was the result of emboli consequent upon the intense chronic hypertrophic rhinitis, which had induced uveitis and atrophy of both globes.

Discussion.—DR. B. A. RANDALL had studied several cases of blindness from optic neuritis caused by nasal disease, but the form of metastatic blindness, as exhibited by Dr. Posey's patient, was rare. He had operated by iridectomy in a similar condition of absolute blindness, closure of the pupil, low tension, and nystagmus, and the patient had recovered vision in one eye sufficient to enable him to earn his living as a canvasser, an occupation that required extensive traveling. Therefore, the prognosis is not altogether hopeless. In answer to a question of Dr. Norris, as to the consistence of the iris, Dr. Randall replied, that, while it was friable, it was sufficiently dense and tough to permit of a clear coloboma and detachment of the excluded pupil.

DR. HOWARD F. HANSELL exhibited a
CASE OF TRAUMATIC 3D NERVE PARALYSIS.

Eight days before, the patient, while gunning, was hit by three No. 4 shot by a companion, at the distance of eighty yards, one penetrating the chin, another the soft tissues of the nose, and the third the inner angle of the commissure of the left eye. The lids and conjunctiva were ecchymotic, the ball uninjured but widely divergent and slightly exophthalmic, the pupil dilated and unresponsive, the accommodation paralyzed, and the media and fundus were entirely normal. X-ray photographs, taken by Dr. W. M. Sweet, showed clearly one shot in the nose and another in the apex of the left orbit. The man could rotate the eye only outward, all other motions being completely abolished. At the expiration of eight days the power of the levator and that of the superior rectus had partly returned, otherwise the conditions were unchanged. From the paralysis of all the muscles governed by the 3d nerve, it would seem as though the trunk of the nerve had been severed, yet it is

hardly conceivable that such a severe injury could have occurred without involvement of adjacent tissues.

Discussion.—DR. SWEET, by invitation described the method and the instrument adopted for localizing the shot in the orbit and exhibited several skiagraphs.

DR. G. C. HARLAN reported a

CASE OF TRANSIENT RETINAL ARTERIAL PULSE, INDUCED BY THE APPLICATION OF HOMATROPIN

in a negro man, 72 years of age, whose general health had been unusually good, with the exception of an occasional attack of sub-acute articular rheumatism. The left eye was disabled by the results of an attack of kerato-iritis. In the right eye, $V. = \frac{15}{60}$. There was no decided increase of tension, the pupil was responsive, the anterior chamber normal, the cornea sensitive, and only moderate peripheral contraction of the field. Homatropin was applied for ophthalmoscopic examination and retinoscopy. The disk was decidedly pale but without excavation, the vessels were slightly narrowed, and there was a very distinct pulsation of the lower branch of the retinal artery. At the next visit, and in a subsequent examination several weeks later, the pulse had disappeared, and there had been some improvement of vision under the use of strychnia.

DR. HARLAN referred to a case that he had reported to the American Ophthalmological Society in 1890. The patient was 66 years of age. An energetic pulse of all the larger arteries on the disk was several times produced by homatropin and stopped by eserine. There was only a very shallow cup and no bending of the vessels at its margin. Tension was doubtful and the field and anterior chamber were normal. This patient, some months after the report of his case, had a well-marked attack of glaucoma of which the transient pulse may be considered the first decided symptom. He suggested that, as the effects of homatropin are easily neutralized by eserine, its application might be a permissible means of diagnosis in some doubtful cases. In a recent case of failing V. with decided cupping, but no other positive symptom of glaucoma, in which iridectomy of one eye had been worse than useless, the absence

of a pulse after the use of homatropin had been considered a useful indication.

Discussion.—DR. EDWARD JACKSON thought the use of homatropin for the diagnosis of glaucoma sometimes justifiable, provided the patient assented and could be kept under observation. He had employed it for this purpose. He referred to a case where duboisin had been used as a mydriatic and had produced the retinal pulse. Iridectomy was done and the patient retained her vision for 16 years. In the second eye eserine had been resorted to, and later, after glaucoma developed, medical and operative treatment were of no avail and vision was entirely lost.

DR. C. H. THOMAS called attention to the relation of the use of mydriatics in refraction work to possible subsequent blindness, as from optic atrophy, and the chance that the patient may suspect a causal relation and hold the physician responsible.

DR. G. E. DE SCHWEINITZ described some CASES OF CENTRAL AMBLYOPIA AND THEIR SIGNIFICANCE,

dwelling particularly upon the early stages of the toxic variety of this affection, when the scotoma rapidly disappears under treatment and visual acuity is restored to the normal. He suggested, in accordance with recent observations, that the lesion at this stage of the disease is probably a vascular disturbance in the macular tract,—a lesion which antedates either inflammation or degeneration of the involved tissues. One case of unilateral central scotoma was presented in which no cause for the visual defect except the abuse of tobacco and alcohol could be found, but he agreed with Dr. Berry and others, that in spite of the absence of other etiological factors, these unilateral cases should be regarded as of doubtful toxic origin. Unilateral scotomas as representatives of the stigmata of hysteria were also recorded, and the author was again in accord with Dr. Berry, that although this etiology had been suggested, they were often the forerunners of serious nervous disease. Finally, cases of scotoma occurring in the so-called "neglected eyes" were presented, one of which had vitiated the visual results of a perfect cataract extraction. Dr. de Schweinitz urged the importance of careful examination for scotomas in obscure cases of amblyopia, and described the methods

which he had found efficacious for determining these defects in the center of vision when the ordinary coarser methods of examination failed.

Discussion.—DR. A. G. THOMSON related a case of so-called "hysterical scotoma" in a young woman. For a space of ten degrees around the fixation point she was blind for form and color. In ten days this had entirely recovered, and a smaller but negative one appeared in the other eye which up to this time showed no abnormality.

DR. RISLEY had recently seen a young woman who presented double optic neuritis with slight swelling, vision gradually sinking to $\frac{1}{10}$, with absolute macular scotoma and peripheral limitation of the field in each eye. No cause could be assigned, although constant hard study through an over-correcting myopic glass might have aggravated the trouble. Under increasing doses of potassium iodid and mercury the scotoma disappeared on one side, and is found only after careful searching on the other; the fields widened and vision was largely restored.

DR. HARLAN suggested that transient scotoma may be due to a slight degree of the same kind of vascular disturbance that, if pushed far enough, would lead to macular hemorrhage.

DR. W. F. NORRIS presented a CASE OF TUMOR OF THE ORBIT IN A CHILD 12 YEARS OF AGE.

A severe traumatism at two years of age caused palpebral ecchymosis. Soon after his parents noticed an unnatural projection of the eye. There is now a tumor, presenting two rounded prominences at the upper inner angle of the left orbit, over which the skin is movable and from which it can be raised in a fold. The eye is forced downward and outward, and its motions upward and inward are almost abolished, while in every other direction they are of considerable extent. Pressure on the eyeball does not force the eye backward into the orbit, nor cause any diminution in the size of the swelling, nor does it cause any dizziness, alteration in the movements of the eyes, difficulty of breathing, nor any other sign of cerebral disturbance. Pressure on the projecting part of the tumor, however, forces the eyeball still further downward and outward,

while pressure on the eyeball renders the tumor more tense. There is no hard lump to be felt, no pulsation, and no bruit. The tumor is a fluctuating mass which apparently extends backward along the roof and inner side of the orbit and which lies outside of the muscle-funnel. The vision in the right eye is $\frac{5}{8}$, in the left, $\frac{5}{7}$. The media are clear and the intraocular ends of the optic nerves healthy. The growth appears to be a cyst extending far back into the orbit, and the question arises what sort of cyst it is. It is probably not an encephalocele, as it does not diminish and no cerebral symptoms are produced by pressure. Fissures between the orbit and the cranial cavity often diminish or close during growth, and diagnosis is, therefore, difficult. Its consistence makes it probable that it is not a fibro cystic tumor. The absence of neuralgic pain and its slow growth argues against its being an echinococcus. It seems to me more likely that it is a dermoid cyst, which was overlooked till the patient was two years old, and that the accidental injury which then occurred caused it to grow and to excite attention. I propose, therefore, to remove the tumor, while endeavoring to preserve the eyeball.

Discussion.—DR. DE SCHWEINITZ had removed a similar tumor, by dissection, from the upper and outer angle of the orbit. It was found microscopically to be a cystic angio-adenoma of the lachrymal gland. Drs. Risley and Randall alluded to cases that were distinctly dermoids, the latter being firmly attached to the orbit.

DR. EDWARD JACKSON read a paper on

THE TECHNIC OF NEEDLE OPERATIONS ON THE LENS AND CAPSULE,

and called attention to certain points with reference to these operations. In some cases dissection of the lens differed essentially from division of the capsule. To avoid the escape of lens matter into the anterior chamber, the opening in the capsule should be small, and to get such a small opening and yet freely divide the lens, it was necessary to bring the opening in the capsule close to the opening in the cornea, by letting the aqueous escape. But to divide a membrane after cataract extraction the longest possible sweep of the cutting

edge was best, and this was obtained by entering the needle through the limbus. This point of entrance also reduced to a minimum the risk of infection, because the wound in vascular tissue closed promptly after the operation. In dividing a capsule it was often best to carry the incision through those portions to which posterior synechia were attached, thus freeing the iris from an irritating drag upon it. He also called attention to the difficulty of securing a crucial incision and the greater certainty of success in making a T-shaped incision, which would allow sufficient gaping to give the required clear pupil.

Current Literature

REPORT ON PSYCHIATRY.

BY A. FERREE WITMER, M.D.

I. Recoveries from Mental Diseases.—*(Journal of Mental Diseases for July, 1897).*

This paper by Soutar is an inquiry into the permanency of the cure of mental disease. The author considers that a "false idea" may be harbored without impairment of the patient's sanity. So long, he goes on to say, as the patient is well in other respects, if he have lost his depression or excitement, if he have recovered his rational interest and affections, if he be reasonably conformable to social laws, if he have regained his power for sustained and orderly mental effort, he is considered sane. When, however, the patient's faulty belief actuates his conduct, and that conduct is of such a nature to be antagonistic to the organized society in which he must live, he is considered insane.

During the years 1890-1895 eighty-five patients were discharged as cured; of this number seventy-three were traced. The conditions noted were arranged into three groups.

(1) Those who soon showed such signs of mental unsoundness as to make it necessary that they be placed in the care of others.

(2) Those who showed signs of some degree of mental enfeeblement or peculiarity which rendered them unfit for carrying on their usual occupations with efficiency.

(3) Those for at least twelve months after leaving the hospital showed no signs of mental enfeeblement to those about them, and

were able fully to resume their place in society and their usual occupation.

Eleven of the seventy-three discharged patients fall under the first heading; thirteen under the second heading, and the remainder of forty-nine under the third heading. Thirty of this last group were in full mental vigor at the end of the fiftieth year.

II. Results of Thyroid Feeding in Insanity.—(*Edinburgh Medical Journal* for November, 1897). Dr. Cross reports results in twenty patients, twelve females and eight males. The extract in tabloids of five grains each was administered. The forms of insanity under treatment were melancholia agitata, melancholia, senile dementia, chronic mania, mental enfeeblement, and dementia. The results were in seriatim:

(1) Melancholia Agitata. Four females and one male. The four females were unimproved, the male greatly benefited. The history of his patient is briefly, viz.: masturbator, age 24, anemic, cardiac action weak, signs of consolidation and crepitation at apex of right lung; of suicidal tendency. Was admitted to hospital in April, '96, and had not improved after eight months' general treatment. He was then placed upon the extract of thyroid body in tabloids of five grains daily. Thirty grains were at first given; the dose was finally increased to sixty. Treatment was continued for nine days, when it was discontinued owing to a failing pulse. Patient was brighter mentally, but shortly had a relapse which lasted a week. He then began to improve steadily and was discharged three months later. No further relapse occurred.

(2) Melancholia. Three females and four males. The females and all but one of the males were unimproved. This one patient had been under observation for over a year without showing benefit. Three days after treatment with thyroid was begun he appeared brighter, talked more and even asked for a book to read. The treatment continued for nine days; at no time were more than nine five-grain tabloids given daily. The improvement is still marked after a lapse of six months.

(3) Senile Dementia. One female. No improvement under treatment.

(4) Chronic Mania. Two females. No improvement under treatment.

(5) Mental Enfeeblement. One female and two males. No improvement under treatment.

(6) Dementia. One female and one male. No improvement under treatment.

The author concludes that all cases gave a greater or less reaction to the thyroid, viz: slight rise of temperature, slightly increased respiration and marked increase of pulse-rate with weakness of the beat. In all cases the pulse was the first to show any change and was most affected by the drug.

The reaction in all cases became more pronounced towards the end of the treatment, passed off gradually when the drug was discontinued, but was quite noticeable for a week at least. The reaction, too, varied in intensity in different subjects, but not in sufficient degree to permit of any positive deductions. An interesting feature was that none of the males became excited while taking the drug, although two showed such marked improvement.

The author finally makes a plea for a thorough trial of the thyroid in apparently hopeless cases of insanity.

Saline Injections After Flooding.—Amillet, (*L'Obstétrique*, July 15, 1897). The author believes that after grave hemorrhage in pregnancy or labor, a saline intravenous injection is the best method for encountering acute anemia. A one per cent. solution of chlorid of sodium is the only available mixture which has no evil influence on the corpuscles. At least from fifteen hundred to two thousand grams of the solution must be injected. In less severe cases two hundred grams can be injected subcutaneously; more than one dose is frequently required. Amillet recommends the use of an intravenous saline injection or a subcutaneous injection before any obstetrical operation is performed upon a woman exhausted by the loss of blood. When the patient has clearly been revived by these means she must, in any case, be closely watched, for sometimes the good effects are not permanent. The injection must be repeated if necessary until all danger has disappeared. F. I. S.

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PHILADELPHIA, DECEMBER 11, 1897

USE DIPHTHERIA ANTITOXIN PROMPTLY AND BOLDLY.

THE PHILADELPHIA POLYCLINIC has from time to time given what is deemed conservative advice in regard to the employment of antitoxic serum in the treatment of diphtheria. While viewing the new treatment favorably, we urged caution at first in the selection of cases, until the dangers and limitations of the remedy were known. We then, as evidence accumulated, pronounced in favor of the early and sufficient administration of the antitoxin in cases of determinate diagnosis. As the result of increasing experience and observation, as well as from study of published reports, we are now prepared to occupy and defend the most advanced position; namely, that without waiting for bacteriologic confirmation of diagnosis, every patient who presents clinical evidence of diphtheria should at once receive a "curative dose" of serum, and all children of the household should be immunized by the same agent. Adults should be immunized if likely to be much exposed, and may be immunized if they desire it, even if not specially exposed.

It is important to have a good syringe, and there is now in the market an excellent

one, made in Philadelphia by a well known manufacturer of antitoxin, which is of convenient size, and capable of quick manipulation and complete sterilization. It is of the highest importance to have a trustworthy serum, of as high potency as possible, so that a dose small in bulk shall be large in antitoxic units. The serums made by certain American houses are fully equal to the imported preparations, if, indeed, they are not superior. They are, in addition, more readily obtained and are likely to be more recent. No preparation that is not standardized should be employed, unless it is the only one available; and in every case the higher the number of antitoxic units per cubic centimeter the easier it is to give an efficient dose.

The failures that occurred in the early days of serum-therapy in diphtheria are to be attributed to tardy and half-hearted employment of the remedy, to insufficient dosage, and to the low potency of the commercial serums, requiring a bulky injection, difficult and painful to administer.

For a child of three years, the initial dose in a tonsillar case of moderate severity seen early, should be 1,000 to 1,500 units; in nasal or laryngeal cases, or in cases in which the lower pharynx is invaded, or severe cases of any variety, the dose should be 2,000 units; and in any case first seen as late as the fourth day, the dose should be 2,000 to 3,000 units. The injection should be repeated in from twelve to twenty-four hours, according to circumstances. For immunizing, 500 units should be the dose; or if infection and incubation be suspected, the curative dose of 1,000 units should be given at once.

With antitoxin properly and promptly used, the throat being kept clean by applications not too frequently repeated [of which Loeffler's solution (toluol and ferric chlorid) is said by competent observers to be the best] pharyngeal diphtheria is robbed of the greater

part of its terrors; while intubation in laryngeal diphtheria has a far more favorable prognosis, the deaths now being fewer than were the recoveries previous to the introduction of antitoxin. What is needed, however, is promptness and courage in the use of the remedy. If THE POLYCLINIC has by its former caution contributed in any degree to the hesitation with which some members of the profession resort to the use of antitoxin, we trust that this article will make amends and inspire the doubters with decision and boldness.

S. S. C.

In the Clinics

IN cases of *acute rheumatism* in Dr. Eshner's clinic, *strontium salicylate* is often prescribed instead of the commonly used sodium salicylate. The former drug is not likely to irritate the stomach as much as the sodium salts, while it has the same action and is free from the effects of salicylism. The dose should be one half more than the dose of the sodium salt. On account of its insolubility it is usually given in powder to be dissolved in hot water.

* *

IN thirty-two per cent. of 200 cases of *stammering*, Dr. Hudson Makuen found *heredity* to be the chief causal factor, and in seventeen per cent. of the same number the *imitation* of others was found to be the cause. Notwithstanding these facts a woman was shown in the clinic who was thirty years of age and the mother of eight children. She had stammered badly all her life and up to this time none of her children has been similarly afflicted.

* *

DR. YOUNG called attention to two different forms of *lumbar abscess in cases of Pott's disease* of the spine, dividing them into external and internal lumbar abscess, according to the location of the pus external and internal to the lumbar fasciæ. The import-

ance of this division is shown in the prognosis of these cases, the internal lumbar abscess being much more grave. Attention was first called to this subject by him six years ago, and experience since then has confirmed the correctness of the opinion.

News Items

APPOINTMENTS AT THE PHILADELPHIA POLYCLINIC.—The following appointments have been made by the Faculty:

Wm. M. Sweet, M.D., Associate in Diseases of the Eye.

Jay F. Schamberg, M.D., Associate in Diseases of the Skin.

W. Oakley Hermance, M.D., Instructor in Gynecology.

Charles Herwirsch, M.D., Instructor in Clinical Medicine.

Clarence J. Garitee, M.D., Instructor in Diseases of the Stomach.

Wendell Reber, M.D., Instructor in Diseases of the Eye.

John S. Miller, M.D., Instructor in Surgery.

Leighton F. Appleman, M.D., Clinical Assistant in Obstetrics.

Wilber C. Hammond, M.D., Clinical Assistant in Gynecology.

Clinton R. Ankeny, M.D., Clinical Assistant in Diseases of the Stomach.

George Campbell, M.D., Clinical Assistant in Medicine.

A. W. Conn, M.D., Clinical Assistant in Medicine.

BEGINNING with the issue of January 1, 1898, Messrs. John Wright & Co., of Bristol, England, will publish a foreign edition of *The Laryngoscope*. This seems to be a new departure in the field of American Journalism, and is construed as a recognition of the advance made by the American medical profession in the trio of specialties represented, as reflected through the pages of our excellent cotemporary.



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THE PHILADELPHIA POLYCLINIC

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WARD CLINIC ON CONGENITAL CATARACT AT THE WILLS' EYE HOSPITAL.

BY S. D. RISLEY, M.D.

Attending Surgeon at the Wills' Eye Hospital; Professor of Diseases of the Eye at the Philadelphia Polyclinic.

GENTLEMEN:—I wish to call your attention to-day to an unusual and extremely interesting group of patients, unusual in the sense that we do not commonly have under care at the same time as many cases of congenital cataract. So far as can be determined in all of these cases the defect of vision was present at birth.

I call your attention first to these two boys, aged respectively 8 and 10 years. They are brothers, have neither father nor mother, and seem to have been sorely neglected. They can understand what is said to them, but have a language of their own in communicating with each other which no one else comprehends. They both were brought to the hospital with a large pyramidal cataract in each eye which quite filled the pupillary area when facing the light. The most careful study could discern no evidence of previous corneal disease so that the origin of the opacity was doubtless prenatal. They found no difficulty, however, in getting about the hospital. Joining hands, each would shade his eyes with the disengaged hand, and scurry about the house, getting into all sorts of mischief, often making attempts to escape from the hospital. Both had a rotary nystagmus, and the peculiar movements of the head which usually characterize children with partially closed pupils.

You will observe now that they are both

wearing glasses, that the nystagmus has disappeared and that they apparently see well. Three discission operations have been performed on each of their eyes, with the result of securing a large central opening through the lens. In my experience it has been exceptional to secure such favorable results as have been reached in the four eyes of these otherwise unfortunate boys. They leave the hospital to-morrow for their home in the interior of the State.

The third case is that of this small negro child, 6 years of age, who also has a pyramidal cataract in both eyes, rather larger in the left. Here also there is no evidence of any previous corneal disease, and the mother of the child thinks the pupils were white at birth, certainly the child never saw well. A discission has been performed on the left eye as a result of which you will observe the lens is swollen, and there are a few flakes of opaque or cloudy cortex projecting from the rent in the capsule. The pupil is dilated on the other side, which affords us excellent opportunity to study the form of the so-called pyramidal, or anterior polar, or capsular cataract. There is a small dense white cone projecting from the capsule into the anterior chamber with a base of about 3 mm. in diameter. Projecting backward into the cortex of the lens is a second cone- or mound-like gray opacity, the remainder of the lens being quite transparent. No satisfactory study of

the fundus is possible. When the pupil is contracted to its ordinary diameter in diffused light, the base of this double pyramid quite effectually excludes the light from the retina and prevents useful vision.

I purpose operating upon this eye now, but you will observe that I make only a small crucial incision at the side of the base of the pyramid, and through this carry the point of my knife with a rotary movement well under the opacity, to permit the aqueous humor to penetrate deeply into the substance of the lens. The child will be kept quietly in bed for a day, with the eye carefully bandaged, and atropia instilled to maintain the dilatation of the pupil. If there is pain or increased tension from the swelling of the lens, cold compresses will be applied to the closed lids. The atropia will, in that case, be omitted and eserine instilled with gentle massage of the ball through the eyelids.

The fourth case is this girl, aged 7 years, also with pyramidal cataract in both eyes and also with no evidence or history of corneal disease. The conditions are almost identical with those in the little negro girl. The left eye was operated upon two days ago, and as you see manifests no reaction. The parents have requested that but one eye should be operated upon so that for the present the right eye is being neglected.

The fifth case is different in all respects except that he also has had defective vision from birth. He is 36 years of age, is married and has a family of children, all with good eyes as far as he knows. He has been able to attend to his business, that of a country storekeeper, until recently, when he observed increasing dimness of vision. Through the dilated pupils his vision in O. S. is $\frac{6}{60}$, but less than this in O. D. Inspection reveals a gray crab-like opacity spread out in the anterior cortex of both lenses, with claw-like extensions projecting well towards the periphery. With strong

illumination numerous vitreous opacities could be made out floating with the movements of the globe. He has been treated for a month by the use of atropia and smoked glasses locally, and iodid of potassium internally. This has relieved his headache, from which he suffered after any attempt to use his eyes, or on exposure to light. The vitreous opacities have also cleared up very much, so that it is now possible to make out patches of chorioiditis. The man is in good health and has never had syphilis.

It is probable that the pathological conditions of the fundus have been aggravated if not caused primarily by the eye-strain caused by every effort to obtain accurate vision through the peculiar web of opacity in the lens. When asked to read very large print he is forced to bring the book to within a few inches from his face in order to secure a large angle, and he does this notwithstanding the fact that distant objects are seen better with + 2.50 D. I think the subsequent history of his eyes will be more favorable if we can free him from the partially opaque lens, and then allow him to use a cataract glass subsequently. I have therefore advised its removal by solution, and will now perform a cautious first dissection on the right eye, by making a small crucial incision through the anterior capsule at the pole of the lens, and penetrating the lens substance quite to the nucleus.

Extirpation of the Gasserian Ganglion.—

Mugnai reports a successful case in which the Hartley-Krause operation (temporary resection of the squamous plate of the temporal bone) was employed. Six months later the pain remained absent and sensation had returned over the area of the distribution of the second and third divisions of the fifth nerve. —*Il Policlinico*, Sept. 1, 1897.

TYPES OF INSANITY.¹

BY A. FERREE WITMER, M.D.

Instructor in Nervous and Mental Diseases in the Philadelphia Polyclinic and College for Graduates in Medicine;
 Assistant in Physiologic Psychology in the University of Pennsylvania.

AN exact definition of insanity is not possible. Probably the most satisfactory definition could be made from the biologic standpoint, and would include all those modifications of mental activity which impair the adaptability of the individual for living in his present environment.

This definition is comprehensive and necessarily includes all cases of feeble-mindedness, imbecility and idiocy. A definition might be determined from the cause were this positively known.

In the past few years four theories have been advanced in explanation.

(1) Neuron theory, offered by Dercum, who suggests that a possible and permanent retraction of the neuraxon may induce mental enfeeblement. This movement of the neuron was suggested from the observation of Wiedersheim who noted movement in the esophageal ganglion in one of the entomostreacan.

(2) That proposed by Flechsig, in which it is claimed that even partial destruction of the association tracts causes marked mental impairment. That such destruction is present in some cases of insanity has been demonstrated post-mortem. Wernicke proposes the term sejunction for this destruction of association fibers.

(3) Another view is that offered by R. M. Buck, who in an address delivered at the opening of the section of Psychology at the sixty-fifth annual meeting of the British Medical Association, held in Montreal in early September last, suggests an atavistic condition in the insane. In this view insanity is due to a congenital absence or imperfection (leading to breakdown) of some

faculty or faculties, such absence or imperfection being due to more or less complete reversion to an ancestral type. "Upon this view," he goes on to say, "the comparatively recent origin and rapid evolution of the human mind, and especially the rapid mental evolution of the so-called Aryan peoples, in the last four or five thousand years, is almost solely responsible for the large number of cases of insanity in the modern civilized world, since the stability of any form, function or faculty in any race is dependent upon the time it has existed in that race, and, therefore, the more recent a faculty is in a race the more frequently it will be found absent, defective or unstable in the individuals of the race."

(4) A fourth theory is that advanced by Van Gieson, who claims that auto-infection or self-poisoning by elaboration of toxins in the intestinal canal is a frequent cause for insanity.

There is no classification of insanity in general use. That adopted by the London College of Physicians, which Savage styles ideal, is based upon natural conditions, and in that sense is perhaps ideal. This classification groups the different forms of insanity according to the time of life in which each appears, *i. e.*, the insanity of pubescence, of maturity, of senility, etc.

Another classification of insanity is made according to the exciting cause, *i. e.*, alcoholic, epileptic, etc. In the classification proposed by Savage he includes certain forms of hysteria and neurasthenia, neither of which are usually recognized as expressions of mental derangement.

A practical classification is that in use in

¹ Read before the Biological Club of the University of Pennsylvania, December 6, 1897.

the Manhattan State Hospital which recognizes six groups: idiocy, imbecility, melancholia—acute and chronic; mania—acute, chronic and recurrent; dementia—primary, secondary and senile, and general paresis.

An excellent classification proposed by Griesinger includes states of mental depression, states of mental exaltation and states of mental weakness. This is the physiologic classification.

The first of these,—states of mental depression,—includes melancholia in its different stages from hypochondriasis to that accompanied by violent outbursts of unprovoked rage. Hypochondriasis represents the mildest, most moderate form of insanity. The subject of this form of insanity has limitation of the will together with a strong feeling of bodily illness, so that he frequently feels his pulse, examines his tongue and takes notes of their daily variation. I remember well the tremor with which a subject of this disorder pointed to the circumvallate papillæ and asked if that form of cancer was fatal; another accidentally struck the tendon below the knee of his crossed leg and was shocked to find that the leg kicked.

We find in hypochondriasis no impairment of the association of ideas, the abnormal sensations and ideas are logically connected throughout and are justified by reasons which are still within the borders of possibility. We have probably all suffered from a milder form of hypochondriasis, which some genius has called "house nerves."

Some writers claim that the subject of these morbidly sensitive states should not be sympathized with. Hear what an ex-patient writing in the *Journal of Mental Sciences* for October, '97, says on this subject:

"If doctors would always be so good-natured and painstaking as to allow themselves to be taken into the confidence of melancholics, they would relieve many fears,

hasten recovery and often gain the lasting gratitude of their patients."

In the more severe cases of melancholia there are present anomalies of self-consciousness, of the emotions, of the will, of the intellect, of sensibility, and of movement. That which weighs most heavily upon the mind of the patient is that feeling of change which has taken place in his personality. "It appears to me," he will say, "that everything around me is precisely as it used to be, and yet there must have been changes." He finds that he takes pleasure in nothing but must oppose everything. He may realize his condition and also his inability to resist. The limitation of the will, which is one of the fundamental disorders of melancholia, is manifested by inactivity and cessation of all employment together with constant doubt and irresolution. So marked is this irresolution in many cases, that the French have made a separate classification of those so affected, which they call the "insanity of doubt."

As the impression deepens, false ideas and false judgments arise. The patient begins to feel that he has committed some crime, perhaps the unpardonable sin, that he is surrounded by enemies, in short develops delusions of persecution. Hallucinations of hearing are most frequent, while sight, taste and smell follow in the order named. Illusions, while not frequent, are occasionally found in the most depressed. The inception of the delusion is an interesting one. If the statement of the patient can be depended upon this is sudden in onset.

The special senses in the melancholic are dulled. Bevan Lewis finds the reaction time for acoustic stimuli is $\frac{2.0}{100}$ of a second, that for visual stimuli $\frac{2.7}{100}$ of a second; the norm he gives for audition is $\frac{1.5}{100}$, for vision $\frac{1.8}{100}$.

The movements of the melancholic are languid, feeble or restrained. The patient

gladly rests in bed or keeps the entire day in one corner, where he sits without taking the slightest notice of anything that is happening about him. Occasionally, however there is physical restlessness with a confused tumult of words of an emotional character. It is in the paucity of ideas that this stage differs from mania. This latter form of melancholia is termed the agitated form or *amentia* of Meynert. Other forms of mental depression that are recognized are the stuporous and those with suicidal or murderous tendency.

Under the second heading, or states of mental exaltation we find a condition of increased mental activity which may display itself as a continuous impulse to the motor area of the brain, causing a state of great physical restlessness in which the patient keeps his muscles in constant play and talks, laughs and shouts, or weeps in turn. Or, on the other hand, the direct result of this more free development of volition may be the development of inordinate vanity. As the patient attempts explanation of this disposition, delirious conceptions arise, which dominate the mind. The delusions in mania differ from those in melancholia in so far that those of mania are more apt to be systematized and are always expansive in character. In mania we find anomalies of the disposition, of the emotion, of will, of intellect, of sensibility, and of bodily movement.

The desire for ceaseless action and movement may expend itself in harmless gyrations, but may also show itself in perversion of the will, which we recognize as *kleptomania*, *dipsomania*, etc. The earliest change in the intellect is a more rapid flow of ideas, the association of which is not connected. Speech, too, becomes incoherent. Hallucinations are not so frequent as in melancholia, but illusions are more frequent. There is a tendency to constant contraction of many muscle groups. The movements of the body and especially those of the organs of speech,

participate in the state of psychic exaltation.

There is, however, no excessive strength, as is commonly supposed; the patients on the contrary are weaker than in health, but are frequently capable of sustained effort for long periods of time.

Under the third heading or states of mental weakness, we should consider idiocy, imbecility and feeble-mindedness. Although the recent works by Preyer and by Kathleen Moore have thrown much light on the manifestation of the mind in the normal child, sufficient has not yet been done to warrant us in making comparative deductions in the study of the feeble-minded.

Primary dementia, chronic dementia, senile dementia, chronic melancholia, and general paresis are all forms of mental weakness. In all these forms the fundamental condition is a mental weakness, which is general and progressive. Hallucinations, illusions and delusions may be present, but are seldom retained. All thought has degenerated into a disconnected mass of fleeting images and meaningless words. The case books in which the history of such patients are recorded, offer little if any variety of description. "Dull, takes no interest in surroundings, does a little work about the ward," is the average inscription. Primary dementia differs from the chronic type in that it usually results from trauma; but the result is the same: a terminal dementia in which the patient becomes so enfeebled that even his animal wants are unattended to.

General paresis, paralytic dementia or general paralysis of the insane, as the disease is variously called, is an exceedingly common affection, as one in five of the insane are of this form.

Conditions of both mental exaltation and of mental depression are noted in this form of insanity; exaltation is the more frequent. The delusions are, however, not well re-

tained; the physical and mental deterioration is rapid and usually in four or five years convulsions usher in death.

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In the Clinics

AN actor, aged 40, presented himself at Dr. Daland's clinic, giving a graphic description of what he called attacks of *hemoptysis*. He was in great fear of pulmonary tuberculosis. Careful questioning elicited but a moderate loss of flesh and strength. The fact that but a small quantity of blood was discovered occasionally upon the pillow, in the morning when rising; that there was but little cough or expectoration; that there was absence of physical signs of lung disease and that careful examination of the larynx and naso-pharynx gave negative results, made it probable that the hemorrhage was oral in origin. Much to the surprise of all, inspection showed a complete set of upper and lower artificial teeth, which seemed to exclude this explanation of the hemorrhage, but upon their removal, the root of a carious bicuspid, surrounded by inflamed and spongy gums, was discovered. Slight manipulation readily caused bleeding. It was, therefore, evident that the alleged *hemoptysis* was due to *bleeding gums*, a not unusual condition; but it seldom happens that the cause of the hemorrhage is so well concealed, as in this case.

DR. DAVIS, in a recent lecture on *delivery by forceps*, stated that the instrument which, at the present time, is giving the most general satisfaction, not only in his hands and the obstetric clinics in this country, but also abroad, is that known as the Simpson forceps. It is necessary that the instrument should be well made and long enough for high application. The efficiency of the forceps is greatly increased by the use of axis traction tapes. These may be passed through the fenestra, or, what is better, the blades may be perforated by two holes, through which the tapes should be passed. An axis traction bar, while convenient, is not essential.

* *

DR. HUDSON MAKUEN emphasizes in his teaching the importance of *voluntary muscular action* in the treatment of *defects of speech*. Whatever may be the defect, the immediate or direct cause may be traced to faulty muscular action. Remote causes, such as enlarged tonsils, adenoids, etc., should be sought for and removed when practicable in order to facilitate and make possible the right muscular action.

He divides the respiratory muscles into two sets, the one set having for its function the elevation of the ribs, thus enlarging the thoracic cavity, and the other set the depression of the ribs, thus diminishing the thoracic cavity. The fullest development of these muscles is aimed at in the clinic and remarkable skill in their voluntary control was shown to be possible by the exhibition of several cases.

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THE PHILADELPHIA POLYCLINIC

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PHILADELPHIA, DECEMBER 18, 1897

DIPHTHERITIC AND MEMBRANOUS CONJUNCTIVITIS.

DIPHTHERITIC conjunctivitis, as described in the text-books, is characterized by great plastic exudation—the formation of a false membrane on the conjunctiva, firmly adherent and leaving a raw, bleeding surface when removed, with great swelling and induration of the lids and rapid destruction of the cornea. But the application of the methods of bacteriologic diagnosis to diseases of the conjunctiva has decidedly modified our views in regard to diphtheria of the eye, as it has given us new light on the subject of diphtheria in the air passages.

In papers read before the American Ophthalmological Society during the last two years, Dr. Myles Standish, of Boston, has pointed out that the clinical picture usually given in the text-books is quite untrustworthy. He reported three cases giving three distinct clinical pictures. In the case which presented the classical symptoms of diphtheritic conjunctivitis, no diphtheria bacilli were present. Another child died of diphtheria, and the conjunctival sac was lined with false membrane, but this membrane was readily removed without disturbing the epithelium beneath it; and there

seemed no tendency to involvement of the cornea. Dr. de Schweinitz, on the other hand, reported a case where the cornea was rapidly destroyed and sight lost; the bacillus being present, although there was only a moderate membranous deposit upon the conjunctiva.

There have also been reported recently a number of cases of chronic membranous conjunctivitis. Dr. Lucien Howe, of Buffalo, showed one of these at the last meeting of the American Ophthalmological Society. A boy 8 years old had been under observation for eighteen months with a thick, firmly attached, yellowish white membrane covering the conjunctiva of the upper lid. Treatment had exerted but little influence upon the membrane, although it was then becoming thinner. The eyeball had not been seriously damaged. But at one time in its course there had been a severe exacerbation of the disease in the eye, with soreness of the throat and patches of similar membrane on the tonsils, and rise of temperature. Two children that he came in contact with in the same ward at this time developed diphtheria and died. A sister of this boy had presented a similar chronic membranous conjunctivitis. After it had lasted nearly a year and a half she developed scarlatina with diphtheritic patches in the throat. This was accompanied by aggravation of the eye symptoms, and necrosis of the cornea, with loss of useful vision in both eyes.

Although both these cases were carefully studied bacteriologically, and many micro-organisms discovered, the Klebs-Loeffler bacillus was present in each case only during the exacerbation, and not at any other time.

Dr. H. Harlan reports a very similar case (*Journal of Eye, Ear and Throat Diseases*) A girl of ten had long before lost the left eye by sloughing of the cornea, and came with the history that the eye had been about the same for six years. The under surface of the

lid was covered with a growth having all the appearance of diphtheritic membrane at seen in the throat; but cultures from it showed no diphtheria bacilli. As it continued rebellious to other treatment, powdered jequirity was dusted on the lid. This provoked a very severe reaction, and six days later sore throat developed; followed, in two days, by patches of membrane on the left tonsil and fauces. Bacteriologic examinations showed practically pure cultures of diphtheria bacillus from the throat, but none from the eye. The patient recovered from the acute disease, under treatment with antitoxin, but the eye remained unchanged.

When the bacteriologic examination has shown the presence of diphtheria bacilli, the injection of antitoxin serum has proved very efficient, eyes being saved when the corneal necrosis was so far advanced that this seemed impossible. Standish found that the good effect of the serum injection seemed to last less than twenty hours, and that on this account it should be repeated more frequently.

While diphtheritic conjunctivitis and chronic membranous conjunctivitis are both rare forms of disease, it is probable that they are not so rare as the published reports would seem to indicate; and in the present state of our knowledge regarding diphtheria, it is very important that as many of these cases as possible should be carefully studied and placed on record. The discovery of the diphtheria bacillus in large numbers of cases of chronic rhinitis is also of interest in this connection.

E. J.

Editorial Notes

A Valuable Souvenir.—We notice in the November number of the *Colorado Medical Journal* a valuable suggestion by Dr. C. D. Spivak, formerly of the Philadelphia Polyclinic, of a souvenir for the ladies attending the

coming meeting of the American Medical Association. We do not know whether the suggestion will be carried out for this particular meeting; but it is one well worthy of attention, and doubtless the matter will be worked up by somebody. He suggests a compilation of the sketches of physicians' wives to be found in the field of English literature. The physician in literature has received attention at several able hands, and we believe the physician's wife constitutes a type or group of types that offers an interesting field for such a study.

* *

Western Surgical and Gynecological Association.—The next meeting of this Association will be held in Denver, December 28th and 29th. A cordial invitation is extended to Eastern surgeons to attend and participate. They can go, feeling sure of a hearty reception.

Current Literature

Radical Operation for Malignant Testicular Disease consists, according to Stimson, in removing the testicle and its coverings, half of the scrotum with the septum scroti, the cord as high as the internal ring, and the inguinal glands and fat.—*Med. Rec.*, Oct. 30, 1897.

Milk.—J. L. Kerr (*British Medical Journal*, vol. ii, p. 1491). Milk is composed of a multitude of cells suspended in serum. There are two kinds of cells, the fat cells which form the cream, and another variety, which are nucleated and of the nature of white blood corpuscles. The serum consists of water in which is dissolved milk, sugar and serum albumen, with various salts, and chief of all casein. The cells, with the exception of the fat corpuscles, are all living cells. When fresh milk is ingested, these living cells are supposed to be at once absorbed, without undergoing any digestive process. The casein of the milk is digested like other albuminoids, by the gastric juice and absorbed as peptone. The serum albumen is absorbed by

osmosis. Boiling milk kills all the living cells and coagulates the albuminoid constituents; this necessitates the digestion of all portions of the milk before they can be absorbed into the system; in contrast with the entrance of the living cells of unboiled milk directly into the circulation. Hence the lowered vitality of infants fed on boiled milk. Absorption is delayed, and the quantity of milk required for the same amount of growth and nourishment is distinctly larger than when fresh milk is used.

Moon Blindness.—In the *Boston Medical and Surgical Journal*, October 7, 1897, p. 383, Ivan A. Centervall reports a case of "Moon blindness," occurring in a sailor, 19 years of age, who had slept on deck, between 2 and 4 A.M., while somewhere between the equator and 5° north latitude, during the first week of June, 1895. It is the custom of the sailors to carefully protect their eyes from the moon's rays while sleeping on deck, but this man had uncovered his face during sleep. Between 7 and 8 o'clock the following evening he had difficulty in making his way about, although the moon and stars were shining brightly. For a long while thereafter he was practically blind after sunset. He could see nothing straight ahead, but could dimly discern the bulk of objects to the side of his line of vision, without making out clearly what they were. Recovery was gradual, after cessation from work.

Symphysiotomy.—Chas. Jewett (*American Gynecological and Obstetrical Journal*, 1897). Three cases were recorded, all of which resulted in good union of the symphyses and the birth of three living children. With a normal fetal head the operation should not be performed at term if the true conjugate measures distinctly less than three inches. Other contraindications are a narrow vagina and a rigid perineum, a prolonged labor and previous prolonged efforts at extraction with forceps. Hemorrhages and injuries to the soft parts are to be avoided by a slow separation of the bones. Careful extraction, and the insertion previously of a pad of iodoform gauze behind the ends of the pubic bones, obviate the risk of bruising the soft parts between the pubes and the descending head.

Empyema of the Ureter.—Gerster. A man, 26 years of age, had his kidney removed for pyonephrosis, a fistula which intermittently discharged, following. When the sinus was dry, a large quantity of pus was found in the urine, and on the disappearance of the pyuria a copious discharge from the old wound became prominent. Three years after the nephrectomy he came under the care of Gerster, who removed the entire ureter which had become large enough to admit two fingers; one inch above the bladder the ureter was tightly strictured. He was discharged cured.—*Annals of Surgery*, Sept., 1897.

Sudden Death in the Puerperium.—M. Goltman (*Memphis Medical Journal*, April, 1897). This condition is most commonly due to pulmonary embolism, predisposed by phlebitis, varicose veins, prolonged labor, hemorrhage, anemia, sepsis, cancer, and syphilis. In the presence of peripheral thrombosis, absolute rest is necessary, especially during the second and third weeks of the puerperium, when the clots are apt to disintegrate. The extreme changes in the blood, usually ascribed to pregnancy and the puerperium, are erroneous. Sudden death from air embolism at this period is doubtful, but shock is both a direct and indirect cause of death. Two cases are recorded of death from pulmonary embolism after labor. In one, labor was obstructed by a hematoma of the vulva, until this was incised. An embolic pneumonia followed, and sudden death resulted on the fifteenth day, after a slight exertion. In the other case, emboli were found in the pulmonary arteries after death, on the sixteenth day. In both cases, the former varicosities of the femoral and internal saphenous veins had disappeared at the time of death.

Pregnancy Complicated by Kidney Affection.—E. H. Douty (*American Gynecological and Obstetrical Journal*, vol. xi, No. 2, 1897). Albuminuria appearing primarily in pregnancy, apart from pre-existent kidney disease, may arise from (1) Pressure on the renal veins or other vessels. (2) Pressure on the ureters. (3) Increased work of the kidneys due to the excretion of the waste products of the fetus and enlarged uterus. (4) The generally increased arterial tension which is usual in pregnancy. (5) A reflex nervous

influence starting from the pregnant uterus as a source of irritation, and disturbing the circulation or the secretion of the kidney as that of the salivary and of the thyroid glands are in some cases disturbed. (6) The presence of a specific germ. In cases where the kidney trouble is of long standing and the albuminuria amounts to one-third, together with some edema, pregnancy should be at once terminated for the woman's sake, especially since the chance of a living child is very small, as premature labor almost certainly occurs. When, however, there is merely a temporary disturbance of the kidneys and their vascular system, the chances for mother and child are considered better. Pregnancy may be allowed to proceed until albumin is at least two-thirds in amount, other serious symptoms being absent, but sickness, headache, or vertigo would indicate prompt delivery.

News Item

We are in receipt of the initial number of *Current Thought*, Cleveland, O., in the form of a quarterly journal. Heretofore, the publication has been issued as paper-covered books, called "Current Thought Library." Mr. C. Elton Blanchard, the editor of this journal, was formerly publisher of the Cleveland *Medical Gazette*, and is an

active student of anthropologic questions, being a lecturer and director of the American Institute of Anthropology. Physicians will find in *Current Thought* much to interest them, not only as practitioners and students, but as men and women. Sample copies will be sent upon request.

BOOKS RECEIVED.

DISEASES OF THE EYE. By Edward Nettleship, F.R.C.S., Ophthalmic Surgeon at St. Thomas's Hospital, London; Surgeon to the Royal London (Moorfields) Ophthalmic Hospital. Revised and Edited by W. T. Holmes Spicer, M.A., M.B., F.R.C.S., Ophthalmic Surgeon to the Metropolitan Hospital and to the Victoria Hospital for Children. Fifth American from the sixth English edition. With a supplement on Color Blindness, by William Thomson, M.D., Emeritus Professor of Ophthalmology in the Jefferson Medical College of Philadelphia. With 2 colored plates and 161 engravings. 12mo, pp. 521. Philadelphia and New York: Lea Brothers & Co. 1897.



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THE PHILADELPHIA POLYCLINIC

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DECEMBER 25, 1897

THE USE OF THE BICYCLE FROM THE MEDICAL STANDPOINT.

BY CHAS. HERWIRSCH, Ph.M., M.D.

Instructor in Clinical Medicine, Philadelphia Polyclinic; Physician to the Out-Patient Department, Rush Hospital for Consumptives, Philadelphia.

SINCE the bicycle has been introduced into general use, the physician is so often consulted as to the advisability of riding it, that a study of the effects on the system is not out of place. During the last and present summer I have made observations among my patients and others as to the influence on pulse, respiration and general system during and after the use of the wheel.

In most cases the use of the bicycle, in moderation, has done good. A study of the pulse-rate and number of respirations shows that both are increased in fast riding and on hill climbing.

In my own case, when I began riding, after climbing the Strawberry Hill in Fairmount Park, my pulse-rate, which is normally 80 per minute, was increased to 120, the respiration, normally 18, was increased to 20 and 30. It took five minutes of rest to reduce the respiration to normal, *i. e.*, 18, and about eight minutes of rest to get the pulse down to 80 per minute again. If I kept on riding at a moderate speed on level ground, it took fully 10 minutes before I regained normal pulse and respiration. At the present time, after riding eighteen months, my pulse, after the same exertion, is only increased to 100 and the respiration to 24, and only three minutes of rest or five minutes of slow riding are required to reduce both to normal.

A patient, P. A., aged 30, who had grip, followed by pneumonia, in the winter of 1896-97, with some dulness remaining in left lung, which had cleared up by May, 1897, began riding in June, and his pulse and respiration, on climbing the same hill with me, increased to 120 and 26, respectively, and returned after five minutes of rest to normal. His health has much improved on account of his riding. He had been a clerk in an office, and had formerly little out-of-door exercise.

Another patient, H. P., aged 65, suffering with mitral regurgitation and hypertrophied heart, against my advice began riding. He was very nervous, and could not remain on the wheel longer than three to five minutes, before he became cyanosed, and palpitation set in. He would continue riding, so he had a third wheel attached to rear wheel, *i. e.*, had a tricycle made out of his bicycle, and by practice gradually was able to ride four to six miles without feeling any discomfort. His heart lesion is not worse, the hypertrophy has somewhat increased, but he suffers less from palpitation and nervousness, and his general health is much improved.

A medical friend of mine, Dr. P., suffered greatly from dyspepsia; a prominent physician in the city advised him to let medicine alone, and ride every day ten miles on a bicycle. Dr. P. followed the prescription, not, as he said to me, because he liked riding, he did not, but for his health, and has now lost some of his avoirdupois, and is a healthier man.

I. M., aged 25, a clerk I had in my office once or twice a week, last winter, for one or

another complaint—all due to his sedentary habits. In the spring, I advised a bicycle, and, except for a sprained wrist, I have not seen him in my office since. He is in a healthy condition.

Two ladies, 20 and 25 years of age, single, suffering with dysmenorrhea, were ordered bicycles by their physicians, and told me this fall, while calling on me for some other illness, that both were relieved from their former complaint.

Several cases of constipation in young females were cured by the use of the wheel.

Mrs. T., aged 38, dressmaker, after curettement for menorrhagia, in 1896, was ordered a wheel, to relieve constipation and improve her general health by giving her a wholesome out-of-door exercise. She improved in health, but complained that every time she rode in the evening, and retired right after coming home, she could not sleep, as usual. Riding in the daytime would not interfere with her night's sleep. Attributing it to nervous excitement, I ordered bromids at bedtime, and a very few doses relieved her, and now her sleep is not interrupted, and her health is improved.

Two females, one a dressmaker, aged 30, anemic and nervous, and the other a very nervous married lady, tried riding to improve their health, but had to give up, being too nervous to stand the strain on the nervous system and the heart.

I had the good fortune to examine two of the survivors of the 300-mile run in 36 hours a few weeks ago, shortly after they dismounted. Both had an enlarged left heart, a very strong full pulse of 90 and 98

respectively, and normal respiration, but examining one of the men the next morning, about sixteen hours after the first examination, I found the heart normal.

I could cite a number of cases, where observations have been made, but the above will suffice.

These show that the bicycle is of use in a number of complaints, especially in run-down conditions due to lack of exercise and want of fresh air—constipation, indigestion, etc., not due to organic lesion. Too violent exercise in riding a bicycle, as well as any other violent sport influencing the heart, and the long runs of 100 and more miles should not be undertaken, as the same may damage the heart permanently. For the latter statement we have no positive proof at present, as not enough time has passed since those long runs have come into vogue, and the clinical studies have naturally been carried on only a short time; but experience teaches us that a heart, which is often rapidly dilated will subsequently hypertrophy and enlarge with the well known sequelæ.

The saddle should be properly adjusted and have a broad base and a short pommel, and the handle bars should be high enough to allow the rider to sit slightly bent forward. For very nervous persons the bicycle does not appear to be serviceable, and walking is the better exercise. In heart affections, in spite of my patient's not having been injured by his riding, I would hesitate to recommend the wheel.

OPHTHALMIC MEMORANDA.

BY HOWARD F. HANSELL, M.D.

Professor of Diseases of the Eye in the Philadelphia Polyclinic; Clinical Professor of Ophthalmology in Jefferson Medical College, etc.

A SERIAL CATARACT OPERATION.

THE examination of a patient preliminary to the extraction of cataract is not always limited to the inspection of the eye and analysis of the urine but includes various

other conditions. The following brief clinical note is offered in illustration of the complications that may arise and obstacles to be overcome before the removal of the lens.

An aged Irishwoman who had been blind

for several months demanded operation and glasses and expected her requests would be immediately complied with, and resented, without being able to comprehend, or not wanting to comprehend, our explanation that serious difficulties, originating solely in herself, demanded delay.

OBSTACLE I.—Atrophy of the left eye following unsuccessful cataract extraction the previous year; with irritable stump.

The remains of the ball were enucleated and the orbit brought into a healthy condition.

OBSTACLE II.—Muco-purulent discharge from the lachrymal passages and ozena of the nasal mucous membrane.

This dangerous and almost prohibiting complication, demanded slitting up of the canaliculus and nasal duct, probing and disinfecting measures.

OBSTACLE III.—Nervousness and anxiety consequent upon the blindness and confinement to bed or chair, inducing a weak and unsatisfactory condition of health.

Having partly overcome these difficulties by the exercise of the usual remedies and much patience, we proceeded, with considerable trepidation,—for the danger of infection of the wound in the cornea was a real one,—to perform preliminary iridectomy, believing the division of the operation to be the safer method. The wound healed normally. One week later the extraction was safely performed. The final good result was due in large measure to the great interest in the successful outcome and the unusual precautions exercised by the resident surgeon of the Jefferson Hospital, Dr. Carr. The dressings were light pledgets of gauze and cotton held by adhesive strips. The inner canthus was always open and the slit canaliculus turned out by other adhesive strips. The canal was syringed, thoroughly and frequently, day and night, with weak formaldehyde solutions until all danger of infection was passed. After a residence of six weeks and submission to four

operations the patient was discharged with good vision.

HYOSCYAMUS IN ASTHENOPIA.

The value of the exhibition of the tincture of hyoscyamus in moderate doses in cases of chronic spasm of the interni muscles, so-called esophoria, or insufficiency of the externi, first brought to the writer's attention in a discussion on the treatment of muscular asthenopia at the meeting of the Section on Ophthalmology of the College of Physicians of Philadelphia, February, 1896, by Dr. de Schweinitz, who, however, advised large and increasing doses, is indubitable. Patients with hyperopia and low-grade esophoria suffer with ocular pain and headache, sometimes violent, always annoying, and with other reflex disturbances. Is the asthenopia accommodative or muscular or a combination of both? If the former, the correction of the error of refraction will give relief; if the latter, it may mitigate the symptoms, or it may not modify them or indeed it may aggravate them. On the ground that the ametropia is the fundamental causative disturbing influence the first step in the treatment is to give the accommodation rest by atropin and under paralysis of the ciliary muscle to determine the full correction. After a trial of glasses, that should continue at least one month, it is found the headaches are no better and the esophoria remains unchanged. At this stage of the disorder tenotomy is not to be considered and one hesitates to prescribe correcting prisms because their tendency is to practically prohibit spontaneous cure and perhaps to increase the manifest error. Two means of relief may be resorted to, namely, hyoscyamus to lessen the innervation through its quieting influence on the nervous system and prism exercise of the externi. The treatment of esophoria may be comprised under four stages; correction of ametropia, increase of abduction by exercise, prism correction and

operation. The reflex symptoms are most severe in the low degrees of heterophoria before either tenotomy or advancement is indicated and the most beneficial service that hyoscyamus can render is as adjunct to glasses and prism exercise. Two cases under observation for the past year demonstrate its effectiveness, in doses of 10 to 15 drops of the tincture, three times daily.

A schoolteacher suffered intense headaches, aggravated by all near use of the eyes and not relieved by a correction of hyperopia and astigmatism. She was free from pain during the rest of a two months' summer vacation, but relapsed into her old condition upon a resumption of school life. After a few days' administration of hyoscyamus the headaches were relieved but the low and varying degrees of esophoria were not appreciably modified. She placed so much reliance upon the drug that she never failed to resort to it when the headaches became severe and persistent and she was invariably benefited. A second instance of its value was in the case of a young man who was almost disabled by intense photophobia, eye-pain and headache, symptoms of irritability of the nervous system and hyperesthesia of the retina that had been aggravated by injudicious use of *nuxvomica*. Relief was prompt and marked after he had been brought under the influence of hyoscyamus.

Society Proceedings

PATHOLOGICAL SOCIETY OF PHILADELPHIA.

September 23, 1897.

DR. DAVID RIESMAN read a preliminary communication on

PRIMARY CANCER OF THE GALL-BLADDER—EXTENSIVE SECONDARY INVOLVEMENT.

The patient was a married woman, 38 years of age. About November, or December, 1896, after an attack of rheumatism, she was seized with vomiting and epigastric pain, which, with intermissions, continued until I saw her, in March, 1897.

She then was still fairly-well nourished, suffered from vomiting, constipation, and intense thirst, and had a slight jaundice. The abdomen was distended and tender, the liver was enlarged, and the nodules could be felt on its surface and along the edge. There was no enlargement of the spleen. Signs of effusion in the peritoneal cavity were observed. The knee-jerks were exaggerated, and slight ankle-clonus was present. The temperature varied from 101° to 104° F. A blood-count showed 4,633,330 red corpuscles and 31,250 leukocytes, a ratio of white to red of 1:148.

There was marked edema and ascites; for the relief of the latter tapping was resorted to and 5½ pints of fluid were withdrawn. An examination of the fluid revealed the presence of bile, a trace of sugar, and albumin to the amount of 2.67 grams in 100 c.c. The specific gravity was 1.013. Microscopically, nothing save red corpuscles were seen. Culture tubes inoculated with fluid remained sterile. A blood examination made just before the tapping showed red corpuscles, 4,500,000; white corpuscles, 55,125 (ratio of white to red of 1:81.6); hemoglobin, 60 per cent. In stained preparations the increase in leukocytes was seen to affect principally the multinuclear variety.

The patient sank gradually and died, after a few days of delirium, of exhaustion. At the autopsy the *liver* was found much enlarged and studded throughout with cancer-nodules. A number of secondary growths were seen on the peritoneum, including that covering the diaphragm. The *gall-bladder* was small, contracted, and adherent to the liver. Its cavity was greatly reduced in size—about large enough for a walnut—and contained a single dark-colored gall-stone. The wall was enormously thickened—at its thickest part measuring about ¾ inches—and soft, friable, shreddy and disorganized. The cancerous tissue surrounded the cystic duct, but did not occlude it. The *pancreas* contained a cancer nodule the size of a large cherry at the point of junction of the head and neck. The lymphatic glands along the lesser curvature of the stomach were cancerous. The *spleen* was slightly enlarged, but free from metastatic growths. The *lungs* were studded with cancerous growth, and a large bundle of cancerous lymph glands sur-

rounded the great vessels arising from the heart.

Microscopy.—The tumor of gall-bladder is a cylindric epithelioma, with abundant development of the fibrous stroma. The liver tissue is greatly congested, and shows areas of round-cell infiltration. As far as the secondary growths in it are concerned, they well represent the features of the cylindric carcinoma. The pulmonary nodules are like those of the liver; there is also an increase in fibrous tissue in the lung.

Remarks.—Of considerable interest, disregarding for the moment the relationship of the gall-stone to the cancer, is the blood-count, which showed a high degree of leukocytosis and oligochromemia. A few words may be devoted to the results of the analysis of the ascitic fluid. Are we able, from such an analysis, *intra vitam*, to determine the cause of the ascites? This is a question about which much difference of opinion exists. Ott (1) in his studies came to the conclusion that no disease had a characteristic amount of albumin. In his cases of cancer of the peritoneum, the amounts varied from 1.799 to 5.203 per cent. The specific gravity was likewise found by him of no aid in diagnosis, and bore, furthermore, no constant relation to the amount of albumin. Runeberg (2) takes a somewhat different view, dividing the effusions into (i) those caused by affections of the serous membrane itself; (ii) those produced by venous stasis; and (iii) those dependent on an excessively hydremic state of the blood, he finds that the albumin-content in these three groups differs rather widely. In group (i) it varies from 4 to 6 per cent.; in group (ii) from 1 to 3 per cent.; in the third it rarely reaches 0.5 per cent. Combinations of two or all conditions lead to variations in the amount of albumin.

Another feature of interest is the cancerous disease of the glands in the superior mediastinum. It is not unusual to see this involvement in malignant disease originating below the diaphragm. Light is thrown on the relationship between these glands and the abdomen, by some observations of Herbert Durham (3), who noticed enlargement of these glands in animals after artificial intraperitoneal inoculation. The lungs might, of course, act as intermediaries in the trans-

portation of the infectious or neoplastic material.

The last point to which I wish to allude is the relation of the gall-stone to the cancer. Musser (4) in his masterly thesis, has thoroughly dealt with this question. He inclines to the view which is shared by most writers, that gall-stones are a causal factor, their presence producing a mechanical irritation of the wall of the gall-bladder. This view gains support principally from two facts—first, the great frequency with which stones are found in conjunction with primary cancer of the gall-bladder. In Musser's 100 cases, 69 had gall stones; Siegert (5) collected 101 cases with gall stones in 95 per cent.; Kelynack (6) found stones in all of his four cases; and Collinet (7) reports two with lithiasis in each. Secondly, the rarity of stones in cases of secondary cancer—Siegert, in 13 cases (11 of them his own) found them in but 2, or in between 15 and 16 per cent.

REFERENCES: (1) Ott—*Zeitschrift f. Heilkunde*, xvii, Heft 4, p. 283. (2) Runeberg—*Berl. Klin. Woch.*, August 16, 1897. (3) Durham—*Jour. of Pathol. and Bacteriol.*, March, 1897. (4) Musser—*Trans. of Association of American Physicians*, 1889, Vol. iv. (5) Siegert—*Virchow's Archiv*, 1893, 132, p. 353. (6) Kelynack—*Practitioner*, 1896, 96, p. 387. (7) Collinet—*Bull. Soc. Anal. de Paris*, 1892, Juillet, p. 476.

DISCUSSION.

DR. A. E. TAYLOR.—The diagnostic value of quantitative estimations of albumin in ascitic fluids is complicated by the fact that different men employ different methods. Some precipitate by heat, others with ammonium sulfate, or picric acid or tannic acid, others calculate the albumin from the nitrogen present; these methods are not all of equal value, and in different cases the results they furnish will vary markedly, as I have learned from personal experience. But even with one method employed by all, while the results of different men could then be compared, I do not think many positive diagnoses could be made upon the basis of the quantity of albumin in ascitic fluids.

DR. J. H. MUSSER.—The history of the literature of cancer of the gall bladder is very interesting. Prior to 1880 there were two papers on the subject, since my paper many treatises have appeared. Either these growths were in former years overlooked or

else they have become more frequent. Perhaps a greater frequency may have been the result of the tendency of people to lead more sedentary lives. The question is very interesting in its relation to gall-stones, which are much more frequent in these cases than in cases of cancer in other parts of the body. It seems to me probable that gall-stones can produce a cancerous proliferation of the epithelium of the gall-bladder. That the altered physical and chemical conditions in cases of cancer of the gall bladder might favor the formation of calculi, is also probable. Most cases are in women, 65 per cent. Like this case, my cases had fever, of an intermittent type.

DR. RIESMAN.—Metastasis was marked in this case, but the routes are difficult to fix. I believe, too, that there are no constant relations between the causes of ascites and the albumin in the fluid.

Current Literature

REPORT ON SURGERY.

BY FRANCIS T. STEWART, M.D.

Inferior Maxillary Fracture.—Moriarty. Impressions of both jaws are taken, the fracture being unreduced; and plaster casts, indicating the line of fracture which is severed by a fine saw, are made. The deformity is then corrected, and a vulcanite splint, from each side of which a wire projects, is made; these wires are joined behind the head by a bandage. The jaws are fitted to the splint and a bandage connecting the side wires is run under the chin to support the jaw. When greater pressure is desired, a metal chin piece, fastened to the side wires by screws, may be utilized. If the symphysis be the seat of fracture a continuous cap of gold or aluminum may be cemented to the lower central teeth.—*Boston Med. and Surg. Jour.*, Nov. 18, 1897.

Pyopericardium always demands pericardotomy. That a pericardial exudate is pus, must usually be demonstrated by aspiration, preferably through the upper part of the left xiphoid fossa. If the symptoms be urgent and exudative pericarditis be confounded with cardiac dilatation, exploratory incision is justifiable.

As a result of his work on the cadaver, Roberts proposes the following operation for

suppurative pericarditis: An incision one cm. to the left of the median line is carried from the upper border of the fourth costal cartilage to the top of the sixth, along which it runs to meet an incision made parallel to the vertical part of the first, but four or five cm. to its left. The fourth and fifth cartilages are cut on the level to prevent their falling in when replaced, and the trap-door thus formed, turned up. The triangularis sterni and pericardium are vertically incised, the pleura and the internal mammary vessels being pushed to the left, the sac drained by a double tube coming through the fourth or fifth space, and the trap-door replaced, the cartilages being sewn if necessary. Without operation practically all die; repeated aspiration is but little better. Of thirty-five cases treated by incision 43 per cent. have recovered.—*Jour. Amer. Med. Sciences*, Dec., 1897.

[Shattuck points out that the cardiac impulse in pericardial exudation is *within* the area of dullness.]

Abdominal Wounds greater than a needle puncture can cause peritonitis by extravasation if a hollow viscus be involved, although aseptic urine and bile may be harmless. The peritoneal cavity is especially unfavorable for spontaneous hemostasis. Madelung believes that celiotomy is the treatment for all penetrating wounds seen during the first day, because there are no means of ascertaining the extent of injury, unless the viscera or their contents appear. Cases seen after twenty-four hours, without visceral prolapse and peritonitis, are to be treated expectantly, if the general condition, especially the pulse be good.—*Beiträge zur klinischen Chirurgie*, Band xvii, Heft 3.

Hot-Air Treatment of local lesions symptomatic of diathetic disease may cause ephemeral improvement, but cannot cure. For the relief of arthropathies consequent to trauma, it has proven eminently satisfactory, especially when combined with massage and passive motion. Frazier found its physiological effects to be as follows: a temporary increase of circulation, respiration and temperature; moderate fugacious anesthesia; loss of weight, probably due to the loss of water from the skin and lungs; and a decreased nitrogen output. These effects are purely local in origin.—*Annals of Surgery*, Oct., 1897.

THE PHILADELPHIA POLYCLINIC

Brief, practical, original articles, and news of general professional interest are solicited for publication in this journal. Contributions accepted will be paid for on publication, or, if desired, and so indicated on the manuscript, 250 reprints will be furnished in lieu of other compensation.

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PHILADELPHIA, DECEMBER 25, 1897

LABORATORY TEACHING.

THE characteristic of modern medical teaching is the great amount of time occupied by practical manipulations in laboratories. Twenty-five years ago the teaching in the medical schools of America was almost entirely didactic. Indeed, the dissecting room was the only portion of the college that gave any indication that the faculty believed in training hands as well as filling brains. The laboratory of chemistry existed for the professor, who there prepared the demonstrations for his lectures; but the students had no access to it for either observation or work.

Bright's disease was then often treated as anemia or general debility by those ignorant of laboratory methods of investigation. Surgical operations were unsuccessful and patients died not infrequently, because the operator had not used his hands and cultivated his powers of observation in laboratories of practical anatomy and operative surgery. Law suits occurred, and damages perhaps were paid, because a worthy doctor had failed, when a student, to get experience in applying bandages and splints.

This is now changed. The demands of medical science make it necessary to be familiar with chemic tests and the use of the

microscope in order to do successful clinical work. The doctor trained under the old system is handicapped by the laboratory skill of his younger competitor, who knows how to stain sputum for tubercle bacilli, count blood-cells, estimate the amount of hemoglobin, find with certainty the musculo-spiral nerve, and intubate a larynx with the courage born of manual dexterity.

The Philadelphia Polyclinic has arranged laboratory courses, which are advertised in this journal, to meet the wants of physicians who believe in familiarizing themselves with the instruments and methods of precision of modern medicine. It does not require any peculiar mental aptitude, but merely the intelligence of any educated man to profit by such courses; and those who failed to obtain, during student years, instruction in microscopy, chemic analysis and similar laboratory branches can easily learn the fundamental facts and become reasonably expert in manipulation.

The benefit of such knowledge on the part of the physician will soon be appreciated by his patients; and the personal satisfaction felt by the physician, because of his conscious increase in professional attainment, will more than compensate for the time and expense of laboratory instruction.

J. B. R.

New Publication

AN EPITOME OF THE HISTORY OF MEDICINE. By Roswell Park, A.M., M.D., Professor of Surgery in the Medical Department of the University of Buffalo. etc. Illustrated with Portraits and other Engravings. One volume, royal 8vo, pp. xiv+348. Philadelphia: The F. A. Davis Co. 1897.

To popularize the history of medicine, Dr. Park prepared and delivered before his class a series of lectures. The subject-matter of these lectures, rearranged and amplified, constitutes the material presented in this book. The purpose of the work is excellent,

and we do not know of any single volume in the language, making any such presentation of the subject.

No attempt has been made to work out an improved arrangement of historical facts, or to elaborate a philosophy of history. The statements made are generally accurate. We notice, however, it is stated of Asclepiades of Bythnia: "So early as 150 B. C. he enjoyed a high reputation as a rhetorician, and was one of the intimate friends of Cicero." This seems rather remarkable, when we remember that Cicero was not born until 106 B. C.

The history begins with the earliest known records and comes down to the present time. Special chapters are given to the History of Medicine in America, Anesthesia, Antisepsis, and Dentistry. Other specialties do not fare so well. Thus, in naming those credited with making ophthalmology a specialty, Jæger Ritter van Jaxthal is mentioned as two persons,—Jæger, Jaxthal, and Bowman, Græfe, Douders and Helmholtz are not mentioned at all, although the last is elsewhere named as the inventor of the ophthalmoscope.

The book is well printed, and the fifty-six illustrations, mostly portraits of famous physicians and surgeons, add greatly to its value.

E. J.

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